# THE HISTORY OF PHYSICAL EDUCATION IN COLLEGES FOR WOMEN

DOROTHY S. AINSWORTH

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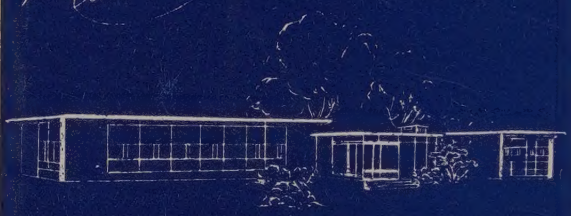

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# THE HISTORY OF PHYSICAL EDUCATION IN COLLEGES FOR WOMEN

1929

# *The* HISTORY *of*
# PHYSICAL EDUCATION
## *in* COLLEGES *for* WOMEN

*As Illustrated by*

BARNARD, BRYN MAWR, ELMIRA, GOUCHER, MILLS, MOUNT HOLYOKE, RADCLIFFE, ROCKFORD, SMITH, VASSAR, WELLESLEY AND WELLS

BY
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*Dedicated to*

DR. JESSE FEIRING WILLIAMS

INSPIRING LEADER AND TEACHER IN THE FIELD OF PHYSICAL EDUCATION

# PREFACE

The colleges included in this study are listed below with their dates of opening:

| Colleges | Date of opening | |
|---|---|---|
| | As a seminary | As a college |
| Mt. Holyoke | 1837 | 1888 |
| Rockford | 1849 | 1891 |
| Elmira | .... | 1855 |
| Vassar | .... | 1865 |
| Wells | 1868 | 1870 |
| Mills | 1871 | 1885 |
| Smith | .... | 1875 |
| Wellesley | .... | 1876 |
| Radcliffe | .... | 1879 |
| Bryn Mawr | .... | 1885 |
| Goucher | .... | 1888 |
| Barnard | .... | 1889 |

In treating the subject of the development of physical education in colleges for women, games and sports have been included, although at first these activities were not, in all instances, under the supervision of the departments of physical education. But, since such activities are so important a part of the present program, they have been traced from the earliest days of the college.

The study does not include the development of Hygiene or Health Education.

The material for the paper has come from three sources.

I. The catalogues of the twelve colleges have been read. In one case (Mills College) a complete file could not be secured because the institution was too distant to be visited. Therefore the catalogues read were those in the Teachers College library where, although some numbers were missing, a fairly consecutive story could be traced. The catalogues studied were those dating from the beginning of each college whether this institution started as a seminary or a college. A more complete picture of the policy of the college in regard to the department of physical education was gained in this way.

II. Student publications, preferably year books, have been read at all the institutions save Mills. From these the greater part of the material for the development of sports and athletics was obtained. At Mills the catalogues included a description of sports at an early date.

III. With the exception of Mills an interview has been held with the Director of Physical Education in each college from which the information concerning the present situation was procured. Information from Mills has been obtained through correspondence.

The author wishes to thank the Directors of Physical Education in the twelve colleges, the members of her advisory committee at Teachers College, Miss Mary A. Clapp and Miss Theresa M. Crowley.

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# THE HISTORY OF PHYSICAL EDUCATION IN COLLEGES FOR WOMEN

# CHAPTER I

## INTRODUCTION

A few years ago in describing physical education in France it was said that that nation was distinguished, not for physical education, but for the lack of it.[1] One may describe the printed matter relating to the history of physical education for girls and women as being distinguished for the same reason. Even in the field of the history of education of women there are but few books to be had.[2]

Since there is so little material on this subject, it seems wise to describe briefly the general development of physical education for girls and women in the United States, before entering upon the more limited and detailed description of the history of physical education in colleges for women.

*The development of physical education for girls and women in the United States.*

1. *The colonial period.* To have arranged a program of physical education activities for the early colonists would have been an act of supererogation. These people filled their days with occupations which demanded physical labor. Men, women and children worked to build and furnish homes, to clear and plant fields.[3]

When some degree of comfort and security had been established, the forms of recreation which the colonists had known in England or Europe reappeared in the settlements.[4] Dancing, hunting, racing, riding, and skating are mentioned.[5] Other types of recreation such as "log rolling," "corn husking" and some new

[1] Ainsworth, Dorothy S., *Physical Education in France,* a paper on file at the Department of Physical Education, Teachers College, Columbia University.

[2] Among the most important are: Goodsell, W., *The Education of Women,* published by Macmillan, New York, 1924.

[2] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York, N. Y. and Lancaster, Pa., 1929.

[2] Seybolt, R. F., *Source Studies in Colonial Education:* the *Private School,* Bulletin No. 28, Bureau of Educational Research, College of Education, University of Illinois.

[3] Bruce, H. A., *Women in the Making of America,* published by Little, Brown & Co., Boston, 1912, p. 343.

[4] Andrews, C. M., *Colonial Folkways, the Chronicles of America,* Yale University Press, 1919, Vol. 9, p. 115.

[5] *Ibid.,* Vol. 9, pp. 115-129.

country dances developed in the colonies.[6] As the frontier moved westward it carried with it these festivities. Some of them are to be found to-day in those communities which have remained in comparative isolation.[7]

Gradually the trading centers of the eastern coast were established. In these communities, by the eighteenth century, many of the women lived a life of comparative ease.[8] They had leisure to follow the fashions of England where, at this time, the delicate, fragile and dependent woman was much admired. Such qualities indeed were mistaken for refinement. Woody writes: "Gentlemen came to regard women as playthings rather than helpmeets, believed they should be educated for show rather than trained in domestic duties." [9]

In America the first physical education which was designed for the purpose of improving the condition of girls and women was introduced in the eighteenth century in the eastern coast cities. At this time the need of exercise and the need for the correction of physical defects appears to have been recognized, since two types of physical education were employed. Dancing was advocated for exercise as well as for the development of social poise [10] and back boards were advocated for training young ladies to hold themselves erect. To accomplish this the girls were strapped to boards which held back their backs in a rigid position.[11] Both dancing and back boards were imported from England.

Dancing was particularly popular. One historian writes: "Most significant, from the standpoint of physical education of girls was the invasion of American cities by dancing masters whose offerings were advertised in considerable numbers after 1725 and, by 1776, were to be found in all cities irrespective of previous religious opposition." [12] Dancing was taught in the cities and in the board-

[6] Skinner, C. L., *Pioneers of the Old South West, the Chronicles of America,* Yale University Press, 1919, Vol. 18. Chapter II, *Folkways,* pp. 31-51.

[7] Burchenal, E., *American Country Dances,* published by Schirmer, New York, 1918, Preface, p. vi.

[8] Holliday, C., *Women's Life in Colonial Days,* published by the Cornhill Publishing Co., Jordan and More Press, Boston, 1922, Chapter V, *Colonial Woman and Social Life,* pp. 174-246.

[9] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York and Lancaster, Pa., 1929, Vol. I, p. 244.

[10] Holliday, C., *Women's Life in Colonial Days,* published by Cornhill Publishing Co., Boston, 1922, p. 88.

[11] Earle, A. M., *Child Life in Colonial Days,* published by Macmillan, New York, 1889, p. 105.

[12] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York, N. Y. and Lancaster, Pa., Vol. II, p. 98.

ing schools for young ladies which flourished in the Colonies in the eighteenth century.[13]

The colonial boarding schools for girls stressed social rather than intellectual training.[14] This emphasis aroused little opposition save among the intellectuals as it did not offend the current opinion of that which was both possible and appropriate for the feminine constitution and mentality.

2. *The first half of the nineteenth century.* The period of the revolution somewhat undermined the prestige of the delicate and dependent woman, the feminine type so popular in the eighteenth century. Moreover the "Declarations and Resolves" of 1774 stated clearly that all men were born free and equal,[15] and while women were not mentioned, such a statement put new and strange ideas into their heads.

One of these ideas was that women had both the capacity and the need for better educational opportunities.[16] As the result of this belief and the efforts of the early crusaders for the educational rights of women, numerous secondary schools for women were founded in the United States in the second and third decades of the nineteenth century.[17] In these schools intellectual rather than social achievements were emphasized.[18]

Such an innovation did not meet with general approval. Many protests against taxing the feminine mind beyond its capacity were voiced. Even more violent was the feeling that the new schools would ruin the health of "females."[19]

But the educators of the time were well aware of the dangers of a sedentary life. In particular "distortions of the spine" were

[13] Seybolt, R. F., *Source Studies in American Colonial Education,* the *Private School,* Bulletin No. 28, published by the Bureau of Educational Research, College of Education, University of Illinois.

[14] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York, N. Y. and Lancaster, Pa., 1929, p. 303, quotes from speech by Benjamin Rush, *Thoughts upon Female Education* given at Young Ladies' Academy, Philadelphia, July 28, 1787, in which the following statement occurs: "In particular it is incumbent upon us to make ornamental accomplishments yield to principles and knowledge, in the education of women."

Goodsell, W., *The Education of Women,* published by Macmillan, New York, 1924.

[15] Bassett, J. S., *A Short History of the United States,* published by Macmillan Co., New York, 1914, p. 179.

[16] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York, N. Y. and Lancaster, Pa., 1929, Vol. I, Chapter VII, New Concept of Women's Education, pp. 301-328.

[17] Goodsell, W., *The Education of Women,* published by Macmillan, New York, 1924, p. 22.

[18] *Ibid.,* p. 17.

[19] *American Journal of Education,* Vol. I-V, 1826-1830.

Gilchrist, B. B., *The Life of Mary Lyon,* published by Houghton Mifflin Co., Boston and New York, 1910, p. 304.

feared. To compensate for the inactivity of the student life various types of exercises were tried in the more advanced schools.

Emma Willard, Catherine Beecher and Mary Lyon were three pioneers in the advancement of education for women in the United States.[20] Each of the three favored a different type of physical education for girls.

Emma Willard thought that dancing was both healthful and beneficial for girls.[21] She introduced dancing as a form of exercise in her school at Troy, New York, which was founded in 1821.[22]

Catherine Beecher, who opened her school in Hartford in 1823,[23] thought that dancing "that fascinating and fashionable amusement" encouraged certain "dangerous tendencies."[24] She favored calisthenics which she described as a system "so combined with music and constantly varying evolutions as to serve as an amusement and also as a mode of curing distortions, particularly all tendencies to curvature of the spine; while at the same time it tends to promote grace of movement and easy manners."[25] Strangely enough, considering Miss Beecher's views on dancing, these exercises are described elsewhere as movements "resembling quadrilles" and the teachers at Mount Holyoke Female Seminary had to be warned to take care in teaching calisthenics that the exercises did not appear to be like dancing.[26] Miss Beecher published a book on calisthenics in 1856.[27]

Mary Lyon was the founder of Mount Holyoke Seminary which opened in 1837. She did not approve of dancing, and although she thought calisthenics a useful form of exercise, she was more interested in exercise which was gained in the performance of household or domestic duties. Exercise thus obtained she thought both profitable and beneficial.[28]

These three types of exercise for girls, dancing, calisthenics and domestic duties, were not only introduced into the schools where

[20] Goodsell, W., *The Education of Women,* published by Macmillan, New York, 1924, p. 17.
[21] *Ibid.,* p. 19.
[22] *Ibid.,* p. 17.
[23] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York, N. Y. and Lancaster, Pa., 1929, Vol. I, p. 320.
[24] Beecher, C., *A Treatise on Domestic Economy for the Use of Young Ladies at Home and at School,* in the *Common School Journal,* Vol. V, pp. 367-368.
[25] *Ibid.*
[26] McCurdy, P. H., *The History of Physical Training at Mount Holyoke College,* in *The American Physical Education Review,* March 1909, p. 141.
[27] Beecher, C., *Physiology and Calisthenics,* published by Harper Brothers, Boston, 1856.
[28] Gilchrist, B. B., *The Life of Mary Lyon,* published by Houghton Mifflin Co., Boston and New York, 1910, pp. 279-282.

their sponsors presided but into many of the schools which were patterned after these three famous seminaries.[29] But physical education for girls was not widespread at this time, for it was practiced only in some of the more advanced schools the number of which was comparatively small.[30]

One other experiment in physical education for girls was tried in the second decade of the nineteenth century and should be mentioned here, although it was continued only for a short time. W. B. Fowle, a teacher in Boston, was interested in the gymnastics which had been imported from Germany in 1825 and were being introduced in New England for boys.[31] This system included hanging and swinging on bars, the use of pulleys, and some arm exercises.[32] Mr. Fowle wrote of this experiment in 1826: "My chief difficulty was in the selection of proper exercises for females. You know the prevailing notions of female delicacy and propriety are at variance with every attempt to render females less feeble and helpless. . . ." [33] Evidently the "prevailing notions" worked against the continuation of the experiment. At least there is no other reference to it after the first description of the exercises for girls.

Of the other three types of exercise two, calisthenics and domestic duties, were replaced in the latter half of the nineteenth century by gymnastics. Calisthenics were not sufficiently vigorous to hold their place, while the performance of domestic duties proved to be of less economic value than had been anticipated. But at Mount Holyoke College the performance of domestic duties remained as a heritage of the policy of Mary Lyon until the second decade of the twentieth century.[34] In the latter years they were retained for the purpose of social rather than physical training. The third type of exercise, dancing, has been continued as a valuable branch of physical education for girls. Its importance in the program of physical education has varied from time to time. Different types of dancing have been used. But dancing to-day, as in

[29] Goodsell, W., *The Education of Women,* published by Macmillan, New York, 1924, pp. 20 and 22.

[30] Woody, T., *A History of Women's Education in the United States,* published by The Science Press, New York, N. Y. and Lancaster, Pa., 1929, Vol. II, p. 99.

[31] Leonard and McKenzie, *A Guide to the History of Physical Education,* Lea and Febiger, Philadelphia, 1927, pp. 237-254.

[32] Fowle, W. B., *The American Journal of Education,* Vol. I, pp. 698, 699. Quoted from *The Medical Intelligencer.*

[33] *Ibid.*

[34] Duties were performed by students as late as 1912-1913, reported by a former student.

colonial times, holds a significant place among physical education activities.

After the eighteen twenties and eighteen thirties, there were no new experiments in physical education activities for girls until the second half of the nineteenth century. But between 1830 and 1860 interest in physiology increased.[35] This did not immediately affect physical education but because hygiene was an object of general discussion it prepared the way for a better understanding of the more scientific systems of gymnastics which were introduced in 1880 and 1890.

3. *The second half of the nineteenth century.* By 1850 it was more generally conceded that women were quite equal to secondary school work. It is after this date, in 1855, that Elmira opened its doors as the first college for women that planned to offer collegiate work on a par with that of the colleges for men.[36] The same protests that greeted the attempt of the secondary schools to introduce a truly academic program, greeted those who proposed even higher education for women. Again the possibility of undermining the health of the students was one of the basic objections to the advancement of colleges for women. As in the early days these objections were met with statements in regard to the care of the health of the students and promises of "physical" as well as the "intellectual culture." [37]

But before the other colleges for women were opened two systems of gymnastics had appeared. One may be described as a reappearance, as it was the system of German gymnastics with which W. B. Fowle had experimented in 1826. The other was the system of light gymnastics of Dio Lewis.

In 1848 a number of political refugees came from Germany to the United States. They reintroduced the German gymnastics which had been popular in Boston in 1825. The gymnastics were practiced in classes formed by societies organized by the German settlers in America. These societies were called the Turnvereine.[38] In 1855 classes for girls were organized.[39] In 1866 there were

[35] Articles in *American Annals of Education,* 1830-1839, and *The Common School Journal,* 1839-1843.
Hartwell, J. M., *Physical Training,* U. S. Bureau of Education, Chapter from report of the Commission of Education, 1897-1898, p. 555.

[36] Taylor, J. M., *Before Vassar Opened,* published by Houghton Mifflin Co., Boston and New York, 1914, pp. 76-79.

[37] *Pamphlet, Smith College,* 1874, p. 5.

[38] Rice, E. A., *A Brief History of Physical Education,* published by A. S. Barnes and Co., 1926, p. 162.

[39] Liebold, A., *The History of the German Turners of Ohio,* in *Mind and Body,* May 1894, p. 137.

120 girls in gymnasium classes and in 1892 this number had increased to 394.[40] It was some time later that this system was used for girls in schools and colleges.[41]

The second type of gymnastics was the "light gymnastics" of Dio Lewis. Dio Lewis came to Boston in 1860 to start a school of gymnastics, not for strong young men but for those people whom he thought most in need of exercises, "old men, fat men, feeble men, young boys and females of all ages."[42] This same year the "American Institute of Instruction" met in Boston and Dio Lewis was asked to speak to the members. Formerly a lecturer on prohibition and women's rights, he was an able orator and thoroughly convinced his audience of the need for physical education. His system, endorsed by the Institute,[43] was composed of light rhythmical exercises "designed less to impart mere strength of muscle than to give flexibleness, agility and grace of movement." The hand apparatus included rings, wands, and wooden dumbbells, which were light and easily managed.[44]

The following year he opened his "Normal Institute for Physical Education" in Boston. This was the first normal school of physical education in the United States.[45] The school was in existence only seven years. But for the next twenty years those who were trained there were teaching gymnastics to girls and women in schools and colleges.[46]

From 1860 to 1900 many of the present colleges for women were founded.[47] At the same time the number of public and private schools for girls was greatly increased.[48] Educators believed that physical education was needed in the schools but they found that much of the inspiration that they had found in the light gymnastics was due to the personality of Dio Lewis.

Hence when Dr. Sargent, who was the Director of the Hemenway Gymnasium at Harvard, opened at Cambridge, Massachusetts,

[40] Rice, E. A., *A Brief History of Physical Education,* published by A. S. Barnes and Co., 1926, p. 167.

[41] *Ibid.,* p. 170.

[42] Leonard and McKenzie, *A Guide to the History of Physical Education,* published by Lea and Febiger, Philadelphia, 1927, p. 259.

[43] Hartwell, E. M., *Physical Training,* U. S. Bureau of Education, Chapter from report of Commission of Education 1897-1898, p. 556.

[44] Leonard, F. E., *The New Gymnastics of Dio Lewis* in the *American Physcial Education Review,* June 1906, p. 87.

[45] Leonard and McKenzie, *A Guide to the History of Physical Education,* published by Lea and Febiger, Philadelphia, 1927, p. 261.

[46] See below chart number 1, p. 27.

[47] See above preface.

[48] Goodsell, W., *The Education of Women,* published by Macmillan, New York, 1924.

in 1881 a school for the training of teachers,[49] there were many in the educational world who welcomed a new system of physical education based upon understandable principles rather than upon inspiration. In 1887 the summer school at the Hemenway Gymnasium was opened to women as well as to men. The Sargent system of gymnastics was based upon a thorough physical examination and the detailed measurement of the body and appendages. That part or muscle found to be less developed was then exercised in the hope of strengthening the weaker parts.[50] Such a system was not difficult to explain and could be taught by those who had taken the Sargent training course. The instruction was individual. This system was at first very popular but eventually was questioned because it was felt that the development of various parts of the body did not necessarily produce coördinated movement. The Sargent School came to use group exercises as well as individual work.[51]

At the same time the German system had increased in popularity and as early as 1891 one woman graduated from the training school sponsored by the Turnvereine, later called the Normal College of the American Gymnastic Union.[52] In 1889 a fourth system of gymnastics was introduced in the United States. These exercises were imported from Sweden and hence were called Swedish Gymnastics. They were taught to one hundred teachers of Boston, at the Boston Normal School of Gymnastics which was founded for that purpose.[53] This system discarded hand apparatus entirely and had such light floor apparatus that it could easily be removed to clear a space for marching and exercises, which the classes performed in unison.[54] To those who needed particular correction, so-called medical gymnastics were given individually.

The followers of the German and Swedish systems were equally ardent in their praise of the gymnastics which they supported.

Meanwhile in the last two decades of the nineteenth century there were references to another type of physical culture. This was

[49] Sargent, D. A., *An Autobiography,* published by Lea and Febiger, Philadelphia, 1927, pp. 196-197.

[50] *Ibid.,* pp. 174-175

Catalogue of Vassar College, 1886-87, p. 16.

Catalogue of Rockford College, 1886-87, p. 41.

[51] Sargent, D. A., *An Autobiography,* published by Lea and Febiger, Philadelphia, 1927, p. 202.

[52] Rice, E. A., *A Brief History of Physical Education,* published by A. S. Barnes and Co., 1926, pp. 167-168 and 171.

[53] Leonard and McKenzie, *A Guide to the History of Physical Education,* published by Lea and Febiger, Philadelphia, 1927, p. 328.

[54] Leonard, F. E., *Per Hendrick Ling and His Successors* in the *American Physical Education Review,* December 1904, p. 234.

promoted primarily by the elocutionists and took several forms. One was the physical culture of Delsarte, the main purpose of which was to train the pupil in the art of pantomime.[55] Another

THE DELSARTE SYSTEM OF PHYSICAL CULTURE. 45

*Seventh Movement.*—Throw the weight upon the advanced leg as far as possible. The knee must be deeply bent, the head well thrown back, and the arms and chest at their widest expansion, the arms being almost as high as the shoulders. (See figure No. 42.)

*Eighth Movement.*—Draw the weight back upon the retired

FIGURE NO. 42.

FIGURE NO. 43.

leg, with a deeply bent knee; close the arms and chest still more closely, and sink the head as low as possible upon the chest. (See figure No. 43.)

FROM THE METROPOLITAN CULTURE SERIES, 1893, PUBLISHED BY PERMISSION FROM THE BUTTERICK PUBLISHING COMPANY (LIMITED)

type was that taught at the Emerson School of Oratory which also stressed graceful movement and gestures.[56]

The fact that from 1850 to 1900 four systems of gymnastics and two or more of physical culture were introduced in the United States and that these same varying types of physical education were

[55] *The Delsarte System of Physical Culture,* published by the Butterick Publishing Co., Limited, 1893.

[56] Emerson, C. W., *Physical Culture,* published by the Emerson School of Oratory Publishing Department, 1891.

advocated for girls as well as boys indicates the advance made in these fifty years in physical education for girls.

Sports for girls and women were increasingly popular from 1890 to 1900 but it was not until some time later that they were encouraged as much as were gymnastics.[57]

In the last fifteen years of the nineteenth century those interested in the promotion of physical education organized, in 1885, the American Association for the Advancement of Physical Education.[58] This Association in the nineties shortened its name to the American Physical Education Association. In 1895 the Association published *The American Physical Education Review*,[59] while the Turnvereine one year before this began the publication of *Mind and Body*.[60]

During these fifty years it had become apparent that women were not the weak creatures they were supposed to be. Moreover it had been proved that ill health did not necessarily result from study. As a result the reason for continuing physical education in the school changed. Physical education was no longer regarded merely as a means of correcting physical defects resulting from study but was continued as a means of forestalling and preventing the development of such defects. In other words physical education came to be regarded more as a preventive than a curative measure. Moreover the social as well as the physical value of such training was beginning to be recognized.

4. *The Twentieth Century, 1900 to 1929.* Sports and games which before 1900 had enjoyed popularity in a limited field have in the twentieth century become an increasingly important branch of physical education for girls and women. In fact this appears to be one branch of physical education upon which all schools agree.

In 1910 Dr. Thomas Wood of Teachers College, Columbia University, stated his belief that games, sports and dancing should replace the various systems of gymnastics in the country.[61] His argument, based upon modern educational theory as applied to physical education, was that discipline and control imposed by an instructor did not train the student in self-discipline and self-control nor give opportunity for self-expression. He stated that no oppor-

[57] Paret, Parmly J., *The Woman's Book of Sports*, published by D. Appleton and Company, 1901.

[58] *The Proceedings of the Association for the Advancement of Physical Education*, 1885.

[59] Vol. I, *American Physical Education Review*, 1895.

[60] Vol. I, *Mind and Body*, 1894.

[61] Wood, T. D., *Health and Education, the Ninth Year Book of the National Society for the Study of Education*, 1910, Part I, pp. 75-108.

tunity was given for such training in gymnastic classes while in sports and games and dancing there were many occasions when the student must direct and discipline herself.

Other schools did not readily accept the idea of replacing gymnastics with less formal activities. And the question still arises in physical education as to whether the physical training of the students is neglected in the effort to gain social values through the teaching of activities. Be that as it may, physical education for girls in the twentieth century has largely concerned itself with the expansion of the sports, games and dancing programs. At the same time the amount of time given to gymnastics has steadily decreased. In at least one school system they have been eliminated.[62]

In the last five years, 1924-1929, in certain schools the gymnastics of Niels Bukh of Denmark have replaced Swedish or German gymnastics.[63] These exercises with their freedom, rhythm and variety have won many admirers. But what permanent influence they will have cannot be predicted.

In matters of organization there has been a great advance in physical education for girls. The American Physical Education Association has wisely divided the Association into various sections so that those members who deal with the various branches of physical education for girls may work together on their common problems.[64]

In addition the Women's Division of the National Amateur Athletic Federation which was organized in 1923[65] has used its influence to further sports for girls and women under the most beneficial conditions. Physical education for girls and women outside schools and colleges has been furthered by the National Playground Association of America organized in 1906;[66] the Young Women's Christian Association which started gymnastics classes for girls in Boston as early as 1878;[67] and other community centers. The United States Field Hockey Association organized in 1922

[62] Detroit Public School System is an example of this.

[63] See chart number 1, p. 27.

The school year 1930-31 will see Danish Fundamental Gymnastics introduced into Boston High Schools.

[64] Section on Women's Athletics.

Sections for those interested in work for girls, in schools, colleges and out of school groups.

[65] Report of Washington Conference of the National Amateur Athletic Federation.

[66] Leonard and McKenzie, *A Guide to the History of Physical Education,* published by Lea and Febiger, Philadelphia, 1927, p. 341.

[67] Gates, E., *Health Education in the Young Women's Christian Association,* reprint of Letter Prepared for National Physical Education Convention, April 1925, p. 2.

has furthered hockey for adult and school groups.[68] In addition members of this group in 1926 sponsored the publication of *The Sportswoman,* a magazine which encouraged all types of sport for women. In the last eight years the Women's Athletic Associations of colleges and universities have been holding an annual conference to further sports. They also publish a letter to which many colleges contribute.

*Summary:* From the dancing and back boards of the eighteenth century, physical education for girls and women has steadily advanced until it is now practiced not only in public and private schools and colleges but by non-school groups as well. The history of the movement shows that it has advanced and has gained public approval as the concept of the place of women has changed and as her opportunities have increased and broadened.

Miss Goodsell writes of this: "Perhaps the determining factor in developing an attitude of social approval of physical training for women has been, and is, the tremendously enlarged social opportunities and responsibilities of women which make exacting demands upon their self-control, self-reliance, and physical and nervous endurance. No physical weakling, undeveloped of muscle, deficient in nervous control and hampered by uncorrected bodily defects can ever hope to grapple successfully with the complicated situations of modern life as they arise in a vocation, in politics, and in the give and take of strenuous social living." [69]

This brief survey of physical education for girls and women in the United States will prepare the reader for the more detailed study of physical education in colleges for women. The discussion will not deal with the colleges as units, but will take up points of similarity and difference on the following subjects:

1. Theory of physical education.
2. Program of activities.
3. Equipment.
4. Staff.
5. Organization.
6. Athletic Associations and competition.
7. Costume.

[68] *In Retrospect, Field Hockey Guide,* 1928, Spalding's Athletic Library, American Sports Publishing Co., p. 92.

[69] Goodsell, W., *The Education of Women,* published by Macmillan Company, 1924, pp. 288-289.

# CHAPTER II

## THE PLACE OF THEORY IN THE DEVELOPMENT OF PHYSICAL EDUCATION IN COLLEGES FOR WOMEN

The development of physical education in colleges for women reflects the influences that were felt in the more general field of physical education for girls and women in the United States. The *raison d'être* of physical education in colleges for women was the fear that ill health would result from study.

As in the general field there have been three concepts of the purpose of physical education in colleges for women. First it was introduced to cure the physical defects resulting from study. When the feminine constitution proved to be equal to the strain of education, physical education was continued as a preventive measure. The third stage was the recognition of the social as well as physical values to be gained through physical education. It is clear from some of the statements in regard to physical education made in the first days of the colleges, that those who understood the whole plan of the college envisaged from the beginning this third concept of physical education. The statements of Mathew Vassar in regard to physical education are as applicable to-day as in 1865.[1]

With the exception of Barnard and Radcliffe, both non-resident colleges, each of the twelve colleges made some statement concerning physical education in the first descriptions of the colleges. This statement shows the position taken by the colleges in regard to physical education for their students.

*Mount Holyoke College.* Mary Lyon, the founder of Mount Holyoke Seminary, declared in 1837 "regularity of habit . . . promotes health as surely as does systematic study, strength of mind." [2] She introduced walking and calisthenics, but was particularly interested in "domestic duties," as a form of exercise. "This," she wrote, "brings an hour of daily exercise"; [3] and she said later that it "held in those early days a place not unlike athletics . . . as it developed team work and the gift of leadership." [4]

[1] See p. 14.
[2] Gilchrist, B. B., *Life of Mary Lyon,* published by Houghton Mifflin, 1910, p. 272.
[3] *Ibid.,* p. 279.
[4] *Ibid.,* pp. 280-281.

*Rockford College.* At Rockford, which opened in 1849 as a seminary, we find in the first catalogue that "special attention is given to the culture of the heart and also health habits, manners, calisthenics and gymnastic exercises, etc." [5] This cannot be taken too seriously, however, for, with the exception of the first year, there was no teacher of gymnastics in the catalogue until 1866-67.

*Elmira College.* In 1856 in the *Catalogue of Elmira Female College,* the first of the twelve to be founded as a college, it was stated that "careful attention will be paid to health and physical culture" and "exercise in the open air" and "a modest amount of domestic occupation will be apportioned each pupil." [6] But it was not until 1864 that gymnastics were introduced by a pupil of Dio Lewis.

*Vassar College.* Mathew Vassar considered physical exercise as one of the fundamentals of the education of women. He believed that they should have "daily exposure to pure air, in joyous, unrestrained activity." [7] In 1865 in the *First Annual Catalogue of Vassar Female College,* so called for one year only, it was stated that "The health of its students is not to be sacrificed for any object whatever," [8] and that, in addition to instruction in the ordinary school calisthenics, there would be "instruction in Riding, Boating, Swimming, Skating and Gardening, with such a variety of feminine sports and games as will tend to diversify the physical exercises and make them . . . attractive and beneficial to the students." [9]

*Wells College.* "Calisthenic exercises are practiced under a competent instructor," the *Prospectus of Wells Seminary* stated in 1868, but the teacher assigned to this work, combined calisthenics with "vocal music." [10] This arrangement was evidently so unsatisfactory that no other teacher of gymnastics was listed until 1881 when one person combined history and gymnastics with the duties of the college librarian.

*Mills College.* Since 1871, its first days as a seminary, Mills College has advocated physical education. When it became a college twenty years later the new President stated that one of the ends sought by higher education was "physical perfection" to be attained by "outdoor sports, the best of light gymnastics and daily physical

[5] *Catalogue of Rockford Seminary,* 1854-1855, p. 39.
[6] *The Catalogue of Elmira Female College,* 1856-1857, pp. 17, 18.
[7] *The Autobiography and Letters of Mathew Vassar,* edited by Elizabeth Hazelton Haight. Oxford University Press, American Branch, 1916, p. 10.
[8] *First Annual Catalogue of Vassar Female College,* 1865-1866, p. 35.
[9] *Ibid.,* p. 36.
[10] *The Prospectus of Wells Seminary,* 1868, p. 6, 17.

employment that has an element of utility." [11] Mills College had in its early days several things in common with Mount Holyoke. The reference to "utility" is reminiscent of the "domestic duties" favored by Mary Lyon.

*Smith College.* In 1874, the year before Smith opened, a prospectus of the new college contained the statement that "regular gymnastic exercises in the gymnasium will be prescribed under the direction of an educated lady physician." [12] In 1877 the last three words were changed to read "competent lady teacher." [13] From the first days of this college, with exception of four years in the eighties when the instruction of elocution was combined with that of physical education, there has been a full time "lady teacher."

*Wellesley College.* At Wellesley College the Calendar of 1876 tells us that "the health of the students of Wellesley is of primary importance" [14] and "the students are instructed in Calisthenics." [15] A report of the Board of Visitors in 1883 states that "One of the grandest features of the college, especially cherished by the founder, is the abundant and thoughtful provision for physical exercises." [16]

*Radcliffe College.* "The Society for the Private Collegiate Instruction of Women in Cambridge, Massachusetts," better known as "The Harvard Annex," and to-day as "Radcliffe College," did not mention physical education in its first *Courses of Study,* 1880-1881. In 1883 the statement was made that "Professor Sargent's Private Gymnasium is open to the use of the young women at one-half the usual charge." [17] Dr. Sargent was listed as a member of their faculty until a Radcliffe department of physical education was organized in 1892.

*Bryn Mawr College.* Bryn Mawr made provision for physical education at the outset. "Physical Culture" was "regarded as especially important" and was to include exercises and sports.[18]

*Goucher College.* Goucher, then "The Woman's College of Baltimore," in a prospectus of 1888, stated that there would be

[11] "The Inaugural Address of Homer B. Sprague, President of Mills College, October 24, 1885," pamphlet Teachers College Library, Columbia University, pp. 10 and 11.
[12] *Pamphlet "Smith College,"* 1874, p. 5.
[13] *Official Circular No. 4,* Smith College, Oct. 1877, p. 7.
[14] The Calendar of Wellesley, 1876-1877, p. 20.
[15] *Ibid.,* p. 22.
[16] The Report of the Board of Visitors, Wellesley College, 1883, p. 12.
[17] *Courses of Study for the Collegiate Instruction of Women,* 1883-1884, p. 13.
[18] *Bryn Mawr Circular No. 1,* 1883, p. 8.

"a minimum requirement of two half hours exercise weekly throughout the undergraduate course." [19]

*Barnard College.* At Barnard, the youngest of the twelve (1889), there was no mention of physical education until the catalogue of 1903 when gymnastics were offered to the students of Barnard at Teachers College, another branch of Columbia University.

Although at first both Barnard and Radcliffe had no physical education, the students voluntarily took gymnastic exercises elsewhere. Radcliffe students sought the "Private Gymnasium" of Dr. Sargent.[20] At Barnard the early class books refer to "the Berkeley Gymnasium." [21]

It is curious to note the difficulty which the early educators experienced in placing physical education in the college catalogue. It was never a part of the course of study. Frequently it was classified as general information, although it was to be found under "the College Home" [22] in one catalogue and under "Domestic Arrangements" [23] in another.

It is interesting to observe that while all the colleges definitely advocated exercise, they were not very clear as to the type or kind. Later catalogues name the schools in which their teachers of physical education were trained and in some cases describe the system of exercises, thus indicating the college support of the theories upon which these schools were based.

*Dio Lewis.* The theory expounded by Dio Lewis that gymnastics for women should be light, rhythmical and graceful was upheld by a number of the first colleges as indicated by those using his system (see chart number 1, p. 27). But the support of this theory was not as general as was that accorded the theory of Dr. Dudley Sargent.

*The Sargent Theory of Gymnastics.* One reason for the more general acceptance of this theory (see chart number 1, p. 27) was doubtless the fact that it was based upon statistics rather than upon inspiration. The various parts of the body were measured and tested, the weaker parts were exercised and then remeasured and retested.[24] The average gain per pupil and per class was com-

[19] *Prospectus of the Woman's College of Baltimore,* 1888, p. 14.
[20] *Courses of Study, the Society for the Collegiate Instruction of Women,* 1883-1884, p. 13.
[21] *"The Barnard Annual of '94,"* p. 54.
*"The Barnard Mortar Board,"* 1897, p. 58.
[22] *Catalogue of Vassar College,* 1875-1876, p. 26.
[23] *Catalogue of Mount Holyoke Seminary,* 1837-1838, p. 11.
[24] Statement in catalogues of Vassar, 1886-1887, p. 16, and Rockford, 1886-1887, pp. 41, 42.

puted and compared, resulting in an impressive yearly report of gains.[25] It was believed that all students had some defects and

Dio Lewis Gymnastics—1879

that they could and should be remedied by individual attention. It is evident that the Sargent theory was based upon the more general theory that physical training was a corrective or curative

[25] Such tabulations appear in the Reports to the President of the department of physical education at Vassar and Bryn Mawr.

process. The preventive theory was not as yet accepted. The Sargent theory of individual work was most popular in colleges for women between 1881 and 1900.[26] During these same years another type of physical education was introduced, the theory of which differed greatly from that upon which the previous systems had been based.

EARLY CLASSES IN SWEDISH GYMNASTICS, SMITH COLLEGE

*The Theory of Swedish Gymnastics.* The purpose of Swedish gymnastics was to increase circulation and respiration, to assist digestion and to increase nervous control.[27] These objectives, it was believed, could be reached by giving exercises to groups of people and reserving individual instruction for those with specific maladies. Not only were the physiological objectives stressed but it was believed in addition that there was a psychological value in Swedish gymnastics. It was believed the muscular control displayed in the gymnastic lesson carried over into poise and self-discipline.[28] This theory has had a more lasting influence among the twelve colleges than any other. This may well be because of the fine caliber of the early graduates of the Boston Normal School of Gymnastics who went out as missionaries to spread the gospel of

[26] See chart number 1, p. 27.

[27] *Woman's College of Baltimore Bulletin,* April 1905, p. 9; Skarstrom, *Gymnastic Teaching,* second edition, published by The American Physical Education Association, 1921, p. 405.

[28] Skarstrom, W., *Gymnastic Teaching,* published by the American Physical Education Society, Springfield, 1921, p. 4.

Individual Sports Such as Riding and Tennis Were Particularly Popular in 1929

Swedish gymnastics. These exercises were introduced in 1892 (see chart number 1, p. 27) and the teaching in many colleges, until the last few years, has been based upon this theory.[29]

*Games and Sports.* Although games and sports were encouraged, particularly in 1890, they were not considered by most of the colleges as the real work of the department of physical education until after 1910 (see chart number 2, p. 30). Gymnastics were held to be the backbone of physical training and sports were the accessories, as is illustrated by the following statement: "This (referring to sports) is the lighter side of the work in physical training. The serious side consists of regular gymnasium work under an instructor." [30] But the acceptance of sports even as "the lighter side" of physical education prepared the way for a new theory of physical education.

*The Natural Activities Theory of Physical Education.*—In 1910 a discussion on "Health and Education" by Dr. Thomas D. Wood was published by the National Society for the Study of Education.[31] He wrote of gymnastics as an attempt to "formalize in theory the process of bodily development, to make it a mechanical method of subjective artificial control and to favor an anatomical (as distinguished from a functional) idea of physical education which is subject to serious discussion at the present time." [32] Swedish gymnastics he described on the following page as "the most precise system of movements and exercises the world has ever known." [33] He goes on to say that "The attention just now being given to play, games and swimming as well as . . . dancing . . . indicates the wide range and confusing variety of the manifold elements related to physical education." [34]

"Several reasons may help explain this condition of affairs. Not until the last few years has there been a practical recognition of the broader social scope of education with the implied obligations to the physical and social, as well as the intellectual and moral needs of the pupil. Beyond this it is but recently that modern psychology and physiology have proclaimed the scientific facts which have shown the more vital and intimate interdependence between the different aspects of life, which are called physical,

[29] Information gained on a visit to the colleges, spring of 1929.
[30] Welch, Dr., *Competitive Athletics,* in the *Bulletin of the Woman's College of Baltimore* (Goucher College), March 1905, p. 9.
[31] Wood, T. D., *Health and Education,* Ninth Year Book of the *National Society for the Study of Education,* Part I, pp. 75-108.
[32] *Ibid.,* p. 77.
[33] *Ibid.,* p. 78.
[34] *Ibid.,* p. 79.

intellectual, and moral." [35] He goes on to deplore the ignorance of most teachers of physical education in educational theories, and he feels it "unfortunate that the physical and muscular aspects of health occupy so large a part of the horizon of the physical educator" when "physical education is much more a matter of the nervous system than of the muscles" and "should be considered as a qualitative rather than a quantitative affair." Most significant is the statement that "it is most desirable that physical education should occupy itself with a program of activities for the young which would secure these physical aspects of health without fail, as by products, as it were, while the pupil is being guided in the doing of things which will result in the acquirement of mental or moral and social benefits." [36]

Such a condemnation of the accepted theories and practices in physical education at first aroused much opposition. But that others were inclined to follow this line of argument at least in part is indicated by a report of a meeting held at Radcliffe College in 1911 of that conservative group, "The Directors of Physical Training of Women's Colleges in New England." Here it was "generally conceded that at present the departments are too narrowly concerned with problems of exercise" and that there was need of the study of "other factors." [37]

The theory of Swedish gymnastics and the natural activities theory of physical education were particularly at variance on psychological grounds. The claim that the control and muscular response in class carried over into self-control and self-direction outside the gymnastic class was strongly disputed by the followers of the natural activities theory.[38] They advocated sports, games, dancing, stunts, and tumbling as a substitute for gymnastics since these activities offered more opportunities for actual practice in self-direction, and the chance, under wise supervision, to develop those habits and attitudes which would prove beneficial outside as well as in the college.

The most interesting aspect of this last theory was that it was based upon modern educational theory. It looked upon the student as a whole and unified person.

Just as the Swedish theory took exception to the Sargent system because it advocated the isolation and development of various

[35] *Ibid.*, p. 80.
[36] *Ibid.*, p. 81.
[37] *Annual Reports of Radcliffe College*, 1910-1911, p. 67.
[38] Williams, J. F., *The Principles of Physical Education*, published by W. B. Saunders Company, Philadelphia and London, 1928, p. 176.

muscle groups without regard to the whole individual, so the new theory took exception to the Swedish theory because it isolated and developed the physical side of the student without reference to her whole nature.

In particular the new theory held that only through practice in self-direction could high standards of conduct be set. In other words, that the behavior of the student was as much the responsibility of the department of physical education as was the efficient use of her body.[39]

The acceptance of the natural activity theory has been slow but steady. It has won its greatest popularity in the last ten years, 1919-1929.

In colleges for women the general idea that physical education should be truly educational is accepted, but there is little agreement as to the method and material best adapted to reach this objective. The effect of this theory was to decrease the amount of time allotted to gymnastics and to increase the time given to sports, games and dancing.

*The Theory of the Gymnastics of Niels Bukh of Denmark.* Recently a new type of gymnastics has been introduced into the colleges for women. It has been transported from Ollerup, Denmark, and is based upon the theory that continuous, rhythmic, and free movements will give to the participants flexibility, agility and coördination. Mr. Bukh's purpose behind these exercises is to build not soldiers but efficient and useful citizens.[40]

There is no danger that this new theory will replace the generally accepted theory of the value of sports and games for women,[41] but the recreational value as well as the physical value of these exercises has won many admirers.

*Summary.* The theory upon which physical education in colleges for women has been based, has passed through three periods of development. In the first colleges for women physical culture was introduced for the purpose of curing the deformities which it was believed resulted from higher education. Calisthenics, the light gymnastics of Dio Lewis and of Dr. Sargent may be included in this period.

A little later, about 1890, it was more generally believed that

[39] Williams, J. F., *The Principles of Physical Education,* published by W. B. Saunders and Company, Philadelphia and London, 1928, preface.
Wood and Cassidy, *The New Physical Education,* published by the Macmillan Company, New York, 1927, pp. 1-12, Chapter I, pp. xii-xvi.

[40] Lectures by Niels Bukh, given summer of 1927 to American group of students.

[41] *See* Sumption, D., *Too Much Ado About Danish Gymnastics* in the *Journal of Health and Physical Education,* Vol. I, No. 2, February 1930, p. 30.

ill health was not necessarily caused by study and that such a condition could be avoided by regular exercise. At this point physical education was accepted as a preventive measure. Swedish and German [42] gymnastics were particularly well adapted to this purpose.

In the last period physical education not only continued as a preventive measure but in addition entered the broader field of education. In so doing physical education undertook the responsibility of training the student in matters relating to behavior and conduct, as well as in matters pertaining to health.

The activities in the field of physical education which offer the greatest opportunity for training in matters relating to behavior, are sports, games and dancing. The new theory of physical education has greatly affected the program of physical education in colleges for women which will be discussed in the following chapter.

[42] German gymnastics have had little effect upon the development of physical education in colleges for women. Consequently the theory of German gymnastics is not discussed in detail.

# CHAPTER III

## THE PROGRAM OF PHYSICAL EDUCATION ACTIVITIES

Until some time after 1900, the program of physical education activities in colleges for women was divided between gymnastics and all other activities. It is hardly fair to say divided since gymnastics at first monopolized the greater part of the program. But sports and dancing had their place and since 1900 have steadily gained prestige until they have finally overshadowed gymnastics.

### I. Gymnastics.

Gymnastics is a term used to denote the various organized systems of exercises. The term includes calisthenics, light gymnastics, Swedish, German and Danish gymnastics, and even the systems of physical culture favored by the elocutionists.

*Calisthenics* was the first type of gymnastics to be mentioned as a part of a college program of physical education. It is mentioned in the catalogues of Mount Holyoke, Rockford, Wellesley and Wells.

Next came the *light gymnastics of Dio Lewis* "designed to bring the muscles into symmetrical action by agreeable methods" and also to attain "graceful carriage and well-formed bodies." [1] They were used at Rockford, Vassar, and Elmira in 1865, and later at Smith, Mills and Mount Holyoke. These gymnastics are described at length in the "Handbook of Light Gymnastics" written in 1882 by Lucy B. Hunt, Instructor of Gymnastics at Smith College.[2] In her preface she states that she has taken "the Dio Lewis system as a foundation." The movements, she tells us, are "performed steadily and gradually, never with a sudden jerk" and should "begin with care and increase in vigor . . . till all the changes are marked with vigor and dash so essential to their perfect performance." The chapters deal with Free Gymnastics for which "Yankee Doodle" was the "favorite tune," and describe wand exercises, to a schottische, ring exercises, done in pairs or even in fours to Strauss's Waltzes, dumb-bells to the "Boston Dip," and a special exercise to the "Anvil Chorus." Directions for per-

[1] *Smith College Official Circular*, 1879, p. 12.

[2] Hunt, L. B., *Handbook of Light Gymnastics*. Published by Lee and Shepard, Boston, 1882.

cussion, mutual help exercises, bean bag tossing and marching complete the book. Detailed explanation of the exercises is given under each heading.

*The Gymnastics of Dr. Sargent.* The next type of gymnastic work introduced in the various colleges was that of Dr. Dudley Sargent. The first students of the twelve colleges to receive such instruction were those at Radcliffe to whom Dr. Sargent himself gave the exercises. Other colleges to which instructors trained by Dr. Sargent went were Bryn Mawr, Wellesley, Vassar, Rockford and Mount Holyoke. These five colleges all mention this type of work in their catalogues between 1883 and 1889. For example, the catalogue of Rockford for the year 1886-1887 states: "The system is based upon individual development." Measurements and tests were made "by which the weak and undeveloped portions of the body are discovered and exercises and apparatus calculated to strengthen those particular organs and muscles are given." This was done "under the constant supervision" of a graduate of Dr. Sargent's School. The apparatus consisted of weights, rowing machines, walking bars, Quarter Circle, Indian clubs, dumb-bells and "other appliances for the development of muscle with the least expenditure of nerve force." [3]

*Swedish Gymnastics.* The next decade brought in the Swedish gymnastics which have had a marked influence in the development of the physical education for women. Goucher in 1889 even imported a teacher of Swedish gymnastics from the Central Institute of Gymnastics in Stockholm. In 1892 there were instructors trained at the Boston Normal School of Gymnastics at both Smith and Radcliffe. The Swedish system has since that date been introduced at all the colleges save Vassar. The Swedish system dispensed with all hand apparatus, and used only such other apparatus as could easily be removed from the floor and leave a clear space for exercises performed in unison. The exercises were the major part of the program and as stated before coördinated movement was the end sought. For those needing corrective or remedial work special classes were formed.[4]

*Other Systems.* The battle raging in the nineties between the followers of the German and the Swedish systems scarcely touched these colleges. Only one or two of them have ever had instructors who have had training in the German system. Nor were Delsarte

[3] *Catalogue Rockford College,* 1886-1887, pp. 41-42.
[4] Leonard, F. E., *Per Hendrick Ling and His Successors* in the American Physical Education Review, December 1904, p. 234.

or other elocutionary systems particularly influential although they were used in many departments of elocution and sometimes in connection with physical education. This was the situation at Elmira in 1890. At Smith in 1896 Delsarte was used by the elocution department. The Delsarte textbook contained the following description of the System of Physical Culture: "a series of gymnastics designed to strengthen and relax every muscle of the body" and "the mastery of this art meant all manner of bodily graces, and, we may add, perpetual youth." [5]

As a result of the variety of these systems of gymnastics, confusion arose in statements in some of the catalogues. Mills stated in 1902 that both the German and Swedish systems were employed, "the German for mental exercise and coördination; the Swedish more directly for corrective." [6] Elmira was even more inclusive and stated, in 1899, that "Æsthetic and Educational Gymnastics, including free work and calisthenics, formulated upon the German, Swedish and French or Delsarte systems, are presented." [7]

The most recent type of gymnastics is that originated by Niels Bukh of Denmark. These exercises differ from the Swedish system in their rhythm, continuity, and relaxation, and in their very definite increase of opportunities which they afford for recreation. Folk dancing is included in the program. It is impossible at this time to know how influential this movement will be. Several schools of physical education are sponsoring the work with a variety of modifications. The first two institutions, which train teachers of physical education, to introduce these exercises were the Central School of Physical Education of New York [8] and the Bouvé School of Physical Education in Boston. These gymnastics are at the present time in the process of being introduced into this country. The gymnastics of Niels Bukh were first mentioned at Radcliffe in 1925. Other colleges which now teach the exercises of Mr. Bukh are Barnard, Wellesley, Mount Holyoke, Vassar, Smith and Goucher.

The development of gymnastics at the twelve colleges is best indicated by the following chart which shows the year that the different types of gymnastics were first mentioned in the catalogues of the colleges; the colleges where they have been mentioned since; and the colleges where they are still in use.

[5] *The Delsarte System of Physical Education,* published by the Butterick Publishing Co., Limited, New York, 1893. Preface.
[6] *Catalogue of Mills College,* 1902-1903, p. 43.
[7] *Catalogue of Elmira College,* 1899-1900, p. 44.
[8] Now affiliated with Russell Sage College of Troy, N. Y.

CHART NUMBER 1

GYMNASTICS

| Type | First mentioned | Where | Mentioned since | Now used |
|---|---|---|---|---|
| Calisthenics | 1837 | Mount Holyoke | Rockford, Wellesley and Wells | 0 |
| Light Gymnastics of Dio Lewis | 1865 | Rockford<br>Vassar<br>Elmira | Smith, Mills and Mount Holyoke | 0 |
| Early Sargent type of Exercises | 1881 | Radcliffe | Bryn Mawr<br>Wellesley<br>Vassar<br>Rockford<br>Mount Holyoke | 0 |
| Swedish Gymnastics | 1888 | Goucher | All but Vassar | 9 |
| Delsarte | 1890 | Elmira | Rockford and used elsewhere but not under the physical education departments | 0 |
| German Gymnastics | 1902 | Mills | Elmira | 0 |
| Danish or Fundamental Gymnastics | 1925 | Radcliffe | Wellesley, Mt. Holyoke, Barnard, Smith, Vassar, Goucher | 7 |

*Natural Gymnastics.* One other form of activity which has included the word gymnastics in its title is the "natural gymnastics" sponsored by Teachers College, Columbia University. Dr. Jesse F. Williams of Columbia describes natural gymnastics as that which "grows out of natural activities and in effect is a practice of the fundamental elements inherent in them." It should be "presented only in relation to the activity which it represents" and "is not capable of reduction to 'days orders' or of use in syllabi except as illustration." . . . "Finally it should be noted that the real activity is always superior to practice of its parts" . . . "Games, dancing, stunts, camping should comprise the core of the program; natural gymnastics is supplemental as a teaching method to facilitate the acquirement of the real activities themselves." [9]

[9] Williams, J. F., *The Principles of Physical Education,* published by W. B. Saunders Company, Philadelphia and London, 1928, pp. 258-259.

In colleges for women a part of the natural gymnastic program is taught. For example, sports technique is practiced with sports. A small group of college women enjoy stunts and tumbling and apparatus. In two or three of the colleges courses called "natural gymnastics" or "natural activities" have been offered.[10] In the majority the name does not appear in the catalogue but portions of the program of natural gymnastics are taught in the sections of games and sports.

Natural gymnastics are, therefore, not included on the chart of gymnastics because their content is so diversified that they cannot be classified as a single activity.

### II. Activities with a Utilitarian Basis.

One other form of activity which has been mentioned before is exercise which has a utilitarian basis. In 1837 at Mount Holyoke Seminary domestic duties were a part of the daily program of each student. This was continued at the same college in modified form until after 1912. Domestic duties were also mentioned for a short time in the early days of Elmira and Mills. The same idea was introduced at Vassar in required gardening which at least had the advantage of giving exercise out of doors. As a result of this evolved "The Floral Society" whose members it was said "find a delightful and healthful exercise each in the care of the portion, of the garden, entrusted to her."[11] A statement concerning gardening was continued in the catalogue from 1865 until 1886.

### III. Activities Other Than Gymnastics or Domestic Duties.

Gymnastics and domestic work were but one part of the program. At the same time other activities were appearing. Some of these were introduced by the departments of physical education and others by the students or faculty outside the department. These activities were in most cases sponsored and supervised by the departments of physical education but were not a part of the required program; nor were they listed in the catalogue as electives offered by the department.

*The First Classes in Sports and Dancing.* The first activity other than gymnastics in which instruction was actually given by a department of physical education was riding, at Vassar in 1865. Before this other sports had been encouraged but had not been taught. Riding proved too expensive for the Vassar students and

[10] Smith and Mount Holyoke.
[11] Program of Vassar College, 1868-1869, p. 30.

was discontinued in 1874.[12] Next came rowing at Wellesley in 1892 for which the crews were given training in the gymnasium in the winter.[13] Smith introduced fencing in 1895,[14] and æsthetic gymnastics in 1901.[15] Vassar offered æsthetic dancing in 1898.[16] Dancing and fencing crept into most of the catalogues in the first decade of the twentieth century because they required definite organization and instruction, and because they came in the winter when outdoor exercise was difficult.

*First Competitive Games.* At the same time the rather indefinite statements of outdoor exercise began to change to definite statements of specific sports. Tennis and basketball appeared first in the catalogues. Others followed after 1900, so that in 1929 as many as twenty-five activities are listed.[17] The statements concerning physical education in the catalogues do not give a clear picture of the development of sports in the colleges. Long before these activities were actually mentioned in the catalogue, descriptions of the buildings and grounds show that provision had been made for them. Student publications tell of teams and competition which were not mentioned by the official catalogues.

It is from sources other than the catalogues that the earliest information concerning sports was obtained. For example, although Goucher had a pool installed in 1888, there is no mention of swimming until 1904 in official statements concerning physical education.

The sports which were first mentioned were not as a rule directed or taught by the teachers of physical training. It is interesting to observe the order and the location in which they first appeared. From available information riding at Elmira in 1859 was the first sport mentioned. After this came boating at Vassar and Wells in 1876, baseball and archery at Vassar in the same year, tennis at Vassar and Smith in 1879, swimming at Goucher in 1889, basketball at Smith in 1892, golf at Wells in 1894, fencing at Smith and track at Vassar in 1895, hockey at Goucher in 1898, lacrosse at Wellesley in 1901, volley ball at Smith in 1907, water polo and cricket at Bryn Mawr in the same year, natural dancing at Barnard in 1913, soccer at Bryn Mawr in 1919, and clogging at Barnard in 1920.

[12] *Catalogue of Vassar Female College,* 1865-1866, p. 18.
[13] *Wellesley Program,* 1892-1893, p. 56.
[14] *Official Circular Smith College,* 1895-1896, p. 31.
[15] *Ibid.,* 1901-1902, p. 61.
[16] Ballintine. H. I., *The History of Physical Training at Vassar College,* p. 19.
[17] See chart number 2, page 30.

Dancing in some form has had continued popularity ever since its introduction into the college program. There are now three main types of dancing to be found in the colleges. These are folk dancing, rhythmic dancing and tap or clog dancing. The latter is extremely popular to-day. Rhythmic dancing offers the student great opportunity for self-expression and is one of the most valuable forms of physical education.

Chart number 2 lists the sports in the order of their appearance and also shows their present popularity:

CHART NUMBER 2

GAMES AND SPORTS

| Sport | When first mentioned | Where | Mentioned since at | Number of colleges at which specified sports have been retained in the program |
|---|---|---|---|---|
| Riding | 1859 | Elmira | 8 colleges by 1927 | 8 |
| Boating | 1876 | Vassar and Wells | 8 colleges by 1915 | 8 |
| Baseball | 1876 | Vassar | all but Elmira by 1925 | 11 |
| Archery | 1876 | Vassar | all 12 by 1922 | 12 |
| Tennis | 1879 | Vassar and Smith | all 12 colleges before 1900 | 12 |
| Swimming | 1889 | Goucher | all but Elmira by 1923 | 10 |
| Basketball | 1892 | Smith | all 12 colleges before 1900 | 12 |
| Bicycling | 1894 | Wellesley | 5 colleges 1894-1897 | 0 * |
| Golf | 1894 | Wells | 9 colleges by 1927 | 9 |
| Fencing | 1895 | Smith | all but Wells by 1915 | 4 |
| Track | 1895 | Vassar | all but Wells and Rockford by 1925 | 10 |
| Hockey | 1898 | Goucher | all 12 by 1913 | 11 |
| La Crosse | 1901 | Wellesley | 5 colleges by 1929 | 5 |
| Volley Ball | 1907 | Smith | 6 colleges by 1928 | 5 |
| Water Polo | 1907 | Bryn Mawr | 4 colleges by 1926 | 4 |
| Cricket | 1907 | Bryn Mawr | 4 colleges by 1917 | 2 |
| Soccer | 1919 | Bryn Mawr | 4 colleges by 1925 | 3 |
| Clogging | 1920 | Barnard | all 12 by 1928 | 12 |

* Not in the program but still popular.

*The Inclusion of Sports and Dancing in the Required Program.* Sports and dancing were not, when first introduced, a part of the required program, that is, participation in such activities was optional with the students. Gradually sports and dancing were substituted for gymnastics in the Physical Education requirement. At the same time the number of activities in the program greatly increased. The nineteen activities included in chart number 2 are those which have been popular and which were found in the greater number of institutions. In addition there were and are a great number of so-

called light or modified sports such as quoits, croquet, tennaquoit, clock golf, and shuffleboard which were found in only a very few colleges. Such other sports as field ball, speed ball, hand ball, paddle tennis, ring or deck tennis, and badminton, have not as yet been introduced by more than two or three.

The dates at which activities other than gymnastics were made a part of the required and supervised program are as follows:

| | |
|---|---|
| Wellesley | 1906 |
| Bryn Mawr | 1907 |
| Radcliffe | 1910 |
| Rockford | 1910 |
| Mills | 1911 |
| Elmira | 1913 |
| Goucher | 1915 |
| Mount Holyoke | 1917 |
| Vassar | 1917 |
| Barnard | 1918 |
| Wells | 1918 |
| Smith | 1925 |

*New Projects.* The outing club movement is a new type of activity sponsored by departments of physical education. This activity has not come into the required program but has increased the interest in classes of camp craft, riding and canoeing. The first organization at Smith in 1922 has been followed by others at Barnard, Goucher, Mount Holyoke, Mills, Wells and Vassar.

*Rest.* Bryn Mawr instituted the use of rest and sun baths as a new project. Although this could hardly be called an activity, it is very decidedly a health measure and is used as a substitute for required exercises. This has been found to serve so useful a purpose in the program of physical education that it has been adopted by those colleges in which adequate equipment and supervision can be provided.

*The World War and Programs of Physical Education.* It is interesting to note the effect of the war upon the programs of the twelve colleges. At Bryn Mawr in 1919 company drills and community singing were instituted, while at Radcliffe in 1918 efficiency and proficiency points were won. Marching was stressed at Smith. Daily drill was required of all students at Elmira. Farm or garden work was part of the Vassar program—shades of the Floral Society!

*The increase in numbers of activities in the program of phys-*

*ical education* give some indication of the variety of the present programs. Again it must be said that the figures were compiled from information appearing in official catalogues and college publications and that some colleges may be using a greater number of activities than those which they listed.

CHART NUMBER 3

THE INCREASE IN NUMBER OF ACTIVITIES IN THE PROGRAMS OF PHYSICAL EDUCATION

| | 1890 | 1900 | 1910 | 1920 | 1929 |
|---|---|---|---|---|---|
| Barnard | 0 | 3 | 13 | 18 | 23 |
| Bryn Mawr | 2 | 6 | 15 | 19 | 20 |
| Elmira | 4 | 7 | 10 | 14 | 16 |
| Goucher | 2 | 7 | 11 | 15 | 18 |
| Mills | 1 | 3 | 3 | 12 | 19 |
| Mt. Holyoke | 3 | 7 | 12 | 18 | 24 |
| Radcliffe | 2 | 4 | 5 | 11 | 18 |
| Rockford | 4 | 6 | 8 | 9 | 12 |
| Smith | 2 | 5 | 12 | 16 | 25 |
| Vassar | 8 | 10 | 14 | 15 | 19 |
| Wellesley | 5 | 6 | 17 | 18 | 25 |
| Wells | 3 | 6 | 6 | 11 | 16 |

NOTE: All activities within or outside the required program are listed.

From chart number 3 it can be seen that the average number of activities in the college programs has increased from four in 1890 to a little more than nineteen in 1929. This development is due, no doubt, to the attempt to have such a variety of activities that the student will be able to find a sport which will be both enjoyable and beneficial.

*Motor Ability Tests.* Recently in several of the colleges motor ability tests have been tried. These tests are designed to test the skill and bodily control of a student in the performance of such fundamental activities as jumping, running, climbing and throwing. They affect the program in that the score made by the student is used in some instances as the basis for the selection of the type of activity most desirable for that student.

Barnard was the first college to experiment with such tests. At this college as early as 1918 the catalogue stated that "any freshman who has passed the objective test may be exempt from graded gymnastics." [18] In 1921-22 this term was changed to "efficiency." [19] The students scoring high in this test were exempted from gymnastics. More has been done at Barnard with efficiency tests than in any other college. The director of the department has experimented with these tests until a set of scores

[18] *Catalogue of Barnard,* 1918-1919, p. 98.
[19] *Ibid.,* 1921-1922, p. 98.

CHART NUMBER 4

MOTOR ABILITY TESTS USED BY COLLEGES FOR WOMEN IN 1928-1929

| Name of test | Andrews | Brace | Wayman | Wellesley |
|---|---|---|---|---|
| Purpose | To test improvement in fundamental gymnastics | To test general motor ability | To test motor ability | To sort students for apparatus program |
| Method of scoring | Part by measurement and part by opinion of judges with detailed guide for same | Each stunt scored on basis of success or failure in opinion of judge, guide given for same | Measurement of time and distance | Measurement of time and distance |
| Events | Special tests for flexibility of<br>1. Arm and shoulder girdle<br>2. Legs<br>Strength of<br>1. Arms<br>2. Legs<br>3. Abdomen<br>Agility<br>1. Jump, chest vault over boom<br>2. Run, run from back lying | 20 stunts such as<br>1. Walking straight line<br>2. Clap heels in air<br>3. Lie flat, raise to sitting with arms folded<br>4. Kneel, stand with arms folded | Running high jump<br>Basketball throw<br>25 yd. dash<br>Buck for height<br>Ropes for height<br>Boom for balance<br>Tumbling for agility<br>Gymnastics for<br>Form<br>Response<br>Coördination | Running, standing broad jump,<br>Baseball throw<br>Vault over boom<br>Posture and gymnastic tests added to this |

has been produced, against which the students can compare their achievements.

As a result of the interest aroused at Barnard tests have been tried at other institutions. The tests in use in 1928-1929 included the Wayman tests [20] at Barnard, the tests of David K. Brace [21] at Rockford, the Wellesley tests [22] at Wellesley, those of a similar character at Radcliffe, and at Vassar the tests described by Miss Emily Andrews in "Fundamental Gymnastics." [23] These tests varied greatly. The preceding chart illustrates the different types of motor ability tests used by the colleges.

Five colleges, Barnard, Radcliffe, Rockford, Vassar and Wellesley, are now using motor ability tests. In four colleges, Elmira, Goucher, Mount Holyoke and Smith, such tests have been tried and discontinued. In one college, Mills, an agility test is given but no general motor ability test is mentioned.[24] Two colleges, Bryn Mawr and Wells, have no record of motor ability tests.

*Summary.* A survey of the development of the program of physical education in colleges for women shows that in the past half century the emphasis has gradually shifted from gymnastics to a broad program of varied activities. The program includes classes for the most vigorous, such as basketball, hockey, and soccer, etc., and classes for the least vigorous, such as rest or mild sports. The program includes different types of sports, individual or team games; it includes different types of competition, team and individual. It includes non-competitive activities such as dancing, clogging and camping.

A recent experiment in motor ability tests has been tried and has been continued in five colleges.

The development of the program had been paralleled by the increase of facilities for the varied activities. The development of college equipment for gymnastics, dancing, sports and games will be discussed in the following chapter.

[20] Wayman, A. R., *Education through Physical Education,* published by Lea and Febiger, Philadelphia and New York, 1925, Chapter XVIII, *Physical Efficiency Tests,* pp. 286-319.

[21] Brace, D. K., *Measuring Motor Ability,* published by A. S. Barnes and Company, 1927, Chapter VIII, *Brace Scale of Motor Ability Tests,* pp. 100-127.

[22] Motor Test, mimeographed sheet of instructions from Wellesley College, dated April 16, 1927.

[23] Bukh, Andrews and Vesterdahl, *Fundamental Gymnastics,* published by E. P. Dutton and Company, 1928, pp. 192-199.

[24] *Mills College Educational Bulletin,* Series 2, Number 6.

# CHAPTER IV

## EQUIPMENT

In the first days of the colleges any space large enough for calisthenics was used for this purpose, while grounds offering "ample opportunity for exercise in the fresh air" were listed as indispensable by all save Barnard and Radcliffe. From the very outset these two kinds of equipment have been considered necessary, that for indoor and that for outdoor exercise. These have increased simultaneously wherever this has been possible.

### I. Equipment for Indoor Activities.

*Substitutes for Gymnasia.* In colleges which did not at first have gymnasia there were various substitutes. At Vassar the wide corridors of Main Hall were utilized for calisthenics the first year of the college.[1] At Smith College from 1875 to 1879 Assembly Hall in College Hall was used. At Mount Holyoke from 1862 to 1865 the store room over a coal and wood shed served this purpose. At Radcliffe the students first used Dr. Sargent's Gymnasium, later a stable on James Street, then a building on Mason Street "where posts and many obstacles were in the way" and later still Fay House.[2] At Barnard the gymnasium at Teachers College was used from 1903 to 1918. At Elmira no gymnasium was mentioned before 1881 but exercise in the open air was stressed.

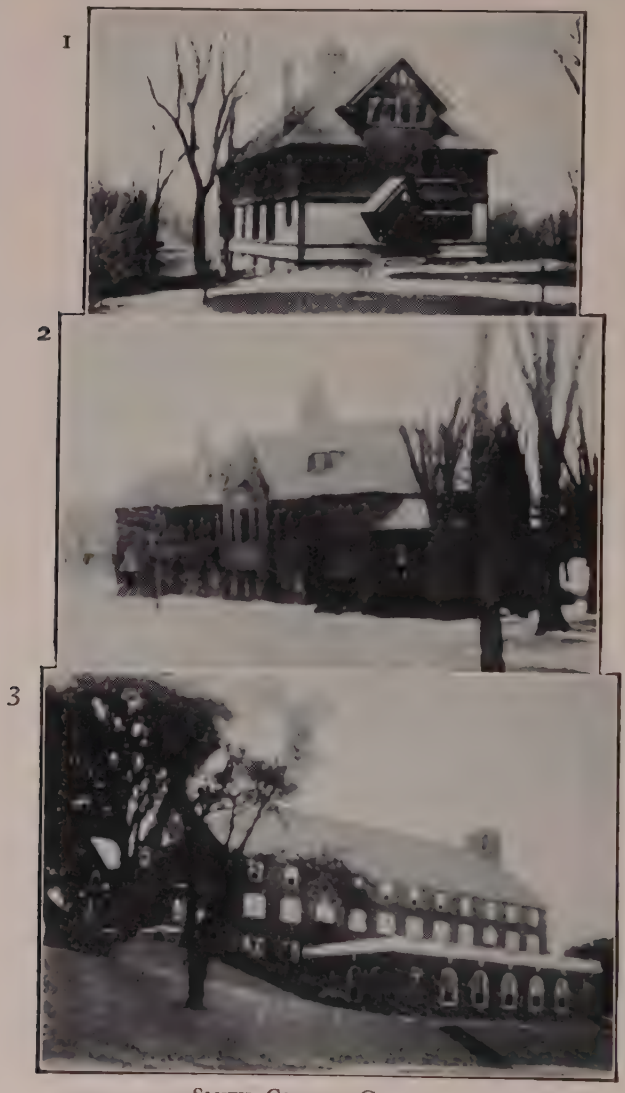
*Gymnasia.* The word gymnasium did not at first refer to a whole building given over to a program of physical education. It merely indicated the place in which gymnastics were taught. For example, gymnastics were first taught at Mount Holyoke in 1865, in the wing attached to the main building; at Wellesley in 1876, in College Hall; at Wells in 1878, on the third floor of Morgan Hall; at Smith in 1875, in Assembly Hall; at Elmira in 1881, in Main Hall; and at Rockford in 1884, in the main building.

[1] Johnson, Emily Cooper, *Dean Bond of Swarthmore,* Press of Lippincott Co. (after 1926), p. 82.

[2] Above information from Miss Ballentine of Vassar, in letters received by her from Miss Emery of Radcliffe and Miss Narey of Mount Holyoke.

*Buildings Before 1890.*

*Vassar.* When Vassar opened in 1865 its Calisthenium was in process of construction. This included an indoor riding ring. On




SMITH COLLEGE GYMNASIA
(1) 1879 (2) 1892 (3) 1929

the floor of the Hall of Calisthenics "was painted a regular pattern of soles of feet in right angled pairs, and at the front of the room

CHART NUMBER 5

THE ERECTION OF GYMNASIA

| Year College Opened | | 1870 * | 1880 | 1890 | 1900 | 1910 | 1920 | 1929 |
|---|---|---|---|---|---|---|---|---|
| 1889 | Barnard ..... | | | | | | Students building | |
| 1885 | Bryn Mawr..... | | | First gymnasium | | Gymnasium rebuilt | | |
| 1855 | Elmira ..... | | | In Main Hall | | | | New temporary gymnasium |
| 1888 | Goucher ..... | | | First gymnasium | | | | |
| 1871 | Mills ..... | | Gymnasium mentioned | | | | New gymnasium | |
| 1837 | Mount Holyoke.. | In wing of main building | | | New gymnasium | | | |
| 1880 | Radcliffe ..... | | | | New gymnasium | | | |
| 1849 | Rockford ..... | | | In main building | | | | |
| 1875 | Smith ..... | | First gymnasium | | Alumnæ gymnasium | | | Scott gymnasium |
| 1865 | Vassar ..... | Calisthenium | | New gymnasium | | Wing added to gymnasium | | |
| 1876 | Wellesley ..... | | In College Hall | | | New gymnasium | | |
| 1868 | Wells ..... | | Third floor of Morgan Hall | | | New gymnasium | | |

* The gymnasia listed were built in the year under which they are listed or in one of the nine preceding years.

a platform held a piano which supplied the music for drills." [3]

*Smith.* In 1879 Smith built its first gymnasium, a small wooden structure, now used to house the college carpenter shop and the offices of the superintendent of buildings.

*Bryn Mawr.* In 1885, the year in which Bryn Mawr was opened, its first gymnasium was built.

*Rockford.* In 1886 the gymnasium at Rockford, which occupied one floor of Sill Hall, was built and is still in use.

*Goucher.* A gymnasium built with the original college buildings at Goucher in 1888 is still the headquarters of the department of physical education, with an additional wing and a floor in another building.

*Vassar.* The following year, 1889, Vassar built her gymnasium. The same building, plus a new wing added in 1906, is now in use at the college.

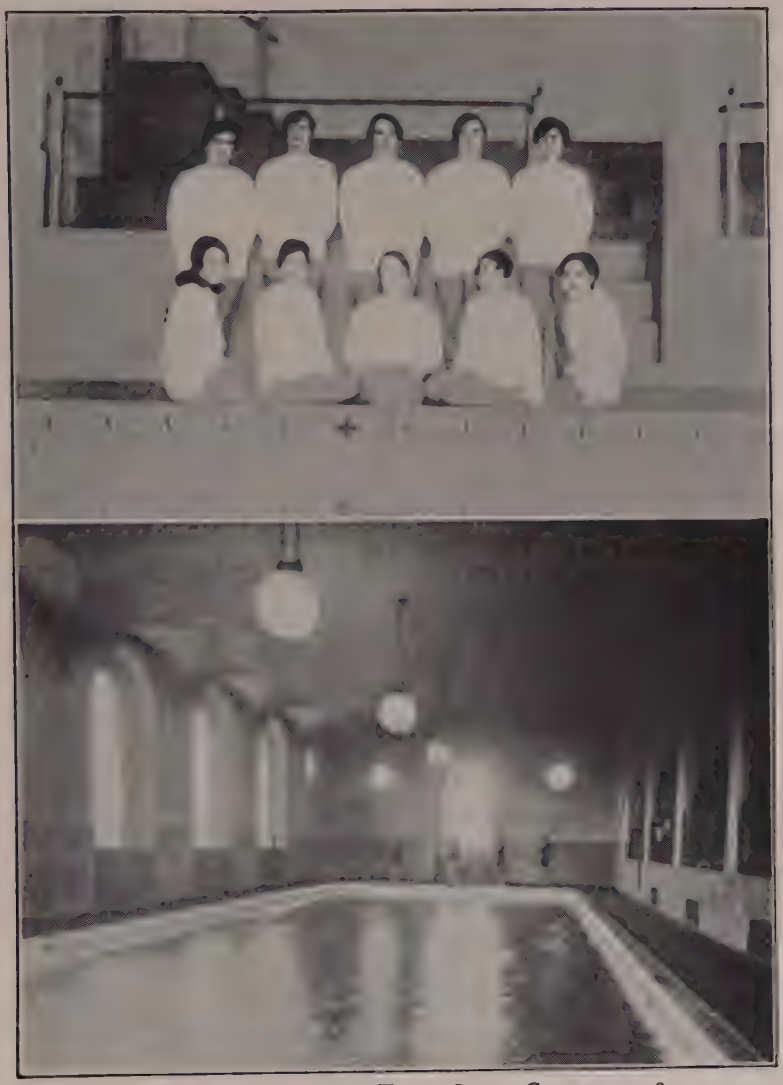
*After 1890,* each college that had not already done so, erected a gymnasium. The building of gymnasia has been an almost continuous process since 1890, for by 1928-29, the buildings erected before 1900 were being replaced. The order in which buildings have been erected is best shown by a chart (see chart number 5).

Not only has the number and size of gymnasia increased but there has been, in addition, a change in the character of the buildings which reflects the program changes cited in the preceding chapter. At first, one hall for gymnastics was considered ample for the physical education department, but as interest shifted to sports and dancing one hall proved to be inadequate. As a result, there was a tendency to divide the buildings into several halls, so that more than one type of activity might be taught at the same time. For example, in 1928-1929 at Goucher three good sized floors beside a pool were in use; Vassar had two large floors and one small one in addition to her pool; and Smith had two large and three smaller floors and a pool. The tendency was to have more than one room for activities, even if the room had to be somewhat smaller than was desirable.

*Swimming Pools.* Swimming was a sport which necessitated special equipment. The value of this sport was recognized as early as 1888 when Goucher built her swimming pool. One year later Vassar installed a pool in her new gymnasium. These pools were of very respectable size and are still in use.

[3] Johnson, Emily Cooper, *Dean Bond of Swarthmore.* Printed by the Press of J. B. Lippincott Company, Philadelphia (since 1926), p. 83.

In the new gymnasium at Smith in 1892 "a swimming bath" [4] was built. Though "no more than five and no less than two" [5] persons were permitted to swim at one time, the pool furnished



A Pool and Swimming Team, Smith College, 1928

much pleasure to many college students for over thirty years. In 1894 a good sized pool was put in the basement of the Bryn Mawr gymnasium. When their new building was erected in 1909, it

[4] *Smith College Catalogue*, 1890-1891, p. 21.
[5] Regulations posted at old pool until December 1929.

was built over this same pool which then became a part of the new gymnasium. Radcliffe had installed her swimming pool before 1900.

It was in 1911 that a pool was built in the gymnasium at Wells College. Ten years later, 1921, Rockford built a very attractive pool in the basement of one of the college dormitories. In 1924 an outdoor pool was opened at Mills where the students could swim throughout the college year. When the new gymnasium at Smith was opened in 1925, the new pool was one of its most attractive features.

Elmira, Mount Holyoke and Wellesley have as yet no swimming pools. But there are pools in the vicinity of these colleges which are open to the students.

*Apparatus.* In addition to the descriptions of buildings in catalogues there were descriptions of apparatus. The first apparatus installed was the light hand apparatus of Dio Lewis. This system called for wooden rings, wands, and dumb-bells.

Heavier and more complicated apparatus was advocated by Dr. Dudley Sargent. Of the nine colleges that describe apparatus, six of them mention that of Dr. Dudley Sargent. This was true at Wellesley in 1882,[6] at Bryn Mawr in their second circular of 1884,[7] at Rockford in the same year,[8] at Vassar in 1889,[9] at Wells in 1890,[10] and at Mount Holyoke in 1899,[11] where the Sargent apparatus is mentioned as well as the Swedish apparatus. In the catalogue of Wellesley, 1890, the two types of apparatus are mentioned, "the gymnasium is equipped with Swedish apparatus and with Dr. Sargent's machines." [12] The Sargent apparatus listed in the Wellesley Calendar for the year 1882-1883, included chest weights, clubs, horizontal bars, rowing machines, flying rings, inclined planes and a great variety of mechanical arrangements for special work.[13] In addition in the Rockford catalogue of 1886-1887 the "Quarter Circle" and "walking bars" were mentioned, the purpose being "the development of muscle with least expenditure of nerve-force." [14] A similar statement was found in more than one catalogue of this period.

[6] *Wellesley Calendar,* 1882-1883, p. 59.
[7] *Circular of Bryn Mawr College,* 1884, p. 9.
[8] *Catalogue of Rockford Seminary,* 1884-1885, p. 37.
[9] *Catalogue of Vassar College,* 1889-1890, p. 46.
[10] *Wells College Catalogue,* 1890-1891, p. 30.
[11] *Catalogue of Mount Holyoke College,* 1899-1900, p. 59.
[12] *Calendar of Wellesley College,* 1890-1891, p. 38.
[13] *Ibid.,* 1882-1883, p. 59.
[14] *Catalogue of Rockford Seminary* 1886-1887, p. 41.

*Zander Machines.* Goucher was unique in having imported "Zander Machines" from Stockholm. These machines, which resembled huge instruments of torture, lined the balcony of their first gymnasium. They were invented by Dr. Zander, of Stockholm, and were described in 1889 in the second catalogue of the Woman's College of Baltimore (Goucher) as being "designed for special movements, . . . constructed along physiological and mathematical principles and . . . not only wonderfully ingenious but absolutely correct. Each machine is built with reference to single muscles or groups of muscles. A system of levers is so arranged that the resistance to be overcome is to be exactly measured, and exactly in proportion to the strength of the person or of the muscle needing attention." [15] By 1891 there were thirty-seven of these machines at the college.[16]

*Swedish Apparatus.* Since many of the directors were trained after 1892 in the use of Swedish apparatus, such as ladders, stall-bars, booms and boxes, soon after 1890 this type of apparatus was added or replaced other types. Many of the buildings, which were erected after 1890, were outfitted with the Swedish type from the beginning.

*Dressing Rooms and Showers.* After 1900 the catalogues gave less space to apparatus and more to such sanitary arrangements as dressing rooms and showers. But these soon ceased to be other than a necessary and expected part of the physical education equipment.

*Rooms for Sports and Dancing.* There was little emphasis on apparatus or showers in the more recent catalogues. More was said about space for various games and activities—such as dancing rooms, basketball courts, volley ball courts, roofs for milder sports or sun baths, hand ball courts, space for indoor baseball, squash, golf cages, courts for badminton, and indoor tennis. The emphasis in regard to equipment changed as the program broadened.

### II. Equipment for Outdoor Activities.

The equipment for outdoor activities has been mentioned since the early days by all the institutions save Barnard and Radcliffe. The year Vassar opened "ample play grounds, foot paths," were a part of the equipment, and a riding school was added the following year.[17] At Wells were found "extensive grounds, surround-

[15] *The Second Catalogue of the Woman's College of Baltimore,* 1889-1890, pp. 32-33.
[16] *Catalogue of the Woman's College of Baltimore,* 1891-1892, p. 16.
[17] *Catalogue of Vassar Female College,* 1865-1866, pp. 17 and 18.

ing the seminary" which afforded "ample room for outdoor sports and healthful recreation." [18] At Mills in 1872 "extensive grounds"

A College Outing Club and Cabin

contributed "to the health . . . of the pupils." [19] The Smith Official Circular, No. 2, issued in 1873, stated that the "grounds

[18] *Prospectus Wells Seminary*, 1867, p. 8.
[19] *Pamphlet Mills Seminary*, 1872, p. 20.

give opportunity for archery, boating and out of door sports." [20] Very appropriately, boating was the first outdoor activity mentioned at Wellesley whose catalogue of 1878 stated that "fourteen safe and convenient boats have been furnished." [21] In the first circular of Bryn Mawr, in 1883, it was said that the grounds would "offer opportunity for lawn tennis and other games," and also that there would be "extended walks kept dry for use." [22] At Goucher it was not until 1897 that "provision for golf, tennis, and other outdoor games" was mentioned.[23] At Barnard there was provision for tennis and basketball and hockey before their gymnasium was built in 1918.[24] Radcliffe too had tennis and basketball courts which were lost with the building of her gymnasium in 1898. Later a new recreation field was purchased to fill this need.[25]

From these beginnings the outdoor equipment steadily increased in all the institutions. Not only the number of athletic fields and tennis courts increased, but golf links, boat houses, field houses, cabins for outing activities, and stables and riding rings were added. This is best shown by a chart. The last column of this chart gives the present equipment for outdoor sports at the twelve colleges.

Golf was started with very simple equipment in those colleges which played the game in the nineties. It was found to be too expensive or to require too much space to be continued. Only Wellesley and Wells have their own links at present. The students at most of the other colleges are permitted to play on some public or private course in their vicinity.

*Summary:* The equipment for physical education activities has been steadily increased since the opening days of the colleges. After 1890 apparently greater impetus was given to the building of gymnasiums and since 1900 facilities for outdoor activities have received an increasing amount of attention.

The purpose for which these buildings were designed has changed in the last thirty-nine years. At first they were planned primarily for gymnastics. Hence but one hall was necessary. With the development of interest in sports, games, dancing, and individual work for those in need of special correction, the newer buildings not only have one but several halls in which a variety of activities may be practiced. Swimming, a specialized sport, has

[20] *Smith College Official Circular* of 1873, p. 7.
[21] *Calendar of Wellesley College,* 1878-1879, p. 63.
[22] *Circular of Bryn Mawr College,* 1883, p. 8.
[23] *Catalogue of Woman's College of Baltimore,* 1897-1898, p. 46.
[24] *Catalogue of Barnard College,* 1917-1918, p. 76.
[25] *Report of Radcliffe College,* 1894-1903, p. 27.

CHART NUMBER 6

DEVELOPMENT OF EQUIPMENT FOR OUTDOOR SPORTS

| | 1890 * | 1900 | 1910 | 1920 | 1929 |
|---|---|---|---|---|---|
| Barnard | | Tennis and basketball courts | Same and hockey field | Same, lost hockey field | Tennis courts, archery, track, outing cabin |
| Bryn Mawr | Tennis courts<br>Games<br>(Grounds for) | Tennis courts<br>Athletic field<br>Pond for boating and skating<br>Golf links | 2 athletic fields<br>Rest the same<br>Golf dropped | 3 athletic fields | 10 tennis courts<br>3 fields<br>Archery |
| Elmira | Lake for rowing and skating<br>Games<br>(Grounds for) | Tennis courts and basketball grounds | Hockey field<br>Archery and same | New courts and track and same | 4 tennis courts<br>1 hockey field<br>Places for milder sports |
| Goucher | | Tennis courts<br>Space for outdoor games | Basketball courts and same | Track<br>Hockey field and same | 3 tennis courts<br>2 fields<br>1 outing lodge |
| Mills | | Basketball court<br>Lawn tennis court | Hand ball court<br>Field | Fields and tennis courts<br>Track and hockey field<br>Archery<br>Hockey and boats, and same | 1 field for hockey and soccer, pool, site for pageant<br>6 tennis courts<br>Archery range<br>Lake for canoeing, weekend lodge, riding ring and stables |
| Mount Holyoke | Boats | Tennis courts and golf links<br>Ice hockey rink | Athletic field<br>Courts<br>Basketball<br>Track<br>Tennis<br>Golf and ice hockey dropped | Same and hockey field<br>Archery range<br>Volley ball court<br>Cricket field<br>Baseball diamond | 2 fields<br>2 volley ball courts<br>9 tennis courts<br>9 archery ranges<br>Canoes |
| Radcliffe | | Tennis courts<br>Basketball courts | New field purchased | | 8 courts<br>1 field<br>1 field house |

| | | | | | |
|---|---|---|---|---|---|
| Rockford | | Tennis courts | Tennis courts<br>Basketball courts<br>Hockey field | Baseball field and same | 1 baseball diamond<br>Archery range<br>Tennis courts<br>1 hockey field |
| Smith | Tennis | Tennis | 2 basketball courts<br>12 tennis courts<br>1 hockey field<br>2 archery ranges<br>1 boat house<br>1 club house | Same and 1 volley ball field<br>1 cricket field<br>1 croquet ground<br>1 crew house | 1 track, 2 hockey fields, 1 soccer field, 24 tennis courts, 10 archery ranges, 1 riding ring, 2 outing cabins, 1 boat house, 8 shells, canoes, 1 crew house, 1 club house |
| Vassar | Tennis courts<br>Croquet grounds<br>Boats | Same and hockey rink<br>Athletic field | Golf links<br>2 hockey fields and same<br>Golf and ice hockey dropped | Same | 14 tennis courts<br>4 hockey fields<br>1 outing cabin<br>1 baseball field<br>1 track |
| Wellesley | 14 boats | Same and a playstead for sports<br>Boat house | Same<br>Track<br>Hockey field<br>Tennis courts<br>Basketball field<br>Golf course<br>Club house | Same and riding hall | 4 archery ranges<br>22 tennis courts<br>2 volley ball courts<br>4 basketball courts<br>1 baseball diamond<br>2 hockey fields<br>1 track and jumping pit<br>1 golf course<br>2 boat houses<br>Canoes, shells<br>1 motor boat |
| Wells | Boat house | Tennis court<br>Basketball courts<br>Golf links | Golf dropped<br>Otherwise same | Hockey field and<br>Same<br>Athletic house | Archery range<br>4 tennis courts<br>1 hockey field<br>2 basketball courts<br>Golf links<br>Boat house<br>Athletic house |

* The equipment listed was added in the year under which it is listed or in one of the nine preceding years.

influenced the building of gymnasia. Pools were found at all save three of the twelve colleges.

Sanitary arrangements, showers and dressing rooms came to be accepted as a necessary part of gymnasium equipment.

Outdoor facilities have grown from the provision of a secluded place in which the students might walk, to fields, tennis courts, outing cabins, stables, golf links and boat houses. The general interest in sports for women has been one cause of the rapid expansion of these facilities.

But no amount of equipment and no amount of variety in the program would be effective unless the instructor in charge of the classes of physical education were of such a caliber that life and meaning would be given to the teaching of the activities. It is of interest in this connection to follow the changes in training and requirements of teachers of physical education as traced in the following chapter.

# CHAPTER V

## THE STAFF

In the earliest catalogues of the colleges for women "light gymnastics" or "calisthenics" were mentioned as a part of the regular college course. An examination of the list of teachers or faculty, however, reveals that teachers were seldom appointed for this particular purpose. This omission occurred more frequently in the catalogues of those institutions which started as seminaries, namely Mount Holyoke, Rockford, Wells and Mills than in the catalogues of those institutions which started as colleges.

It is not surprising that these teachers were not mentioned, for prior to 1861 there were no schools from which trained teachers could be obtained.[1] However, several books on calisthenics had already been published [2] and it was doubtless from some one of these sources that the first teachers of calisthenics obtained their teaching material.

The rapidity with which the title of "teacher of gymnastics" was transferred from one person to another proved how lightly the office was taken in the early days. In the catalogue of Rockford Seminary, 1854 to 1885, appeared the following combinations:

1854-1857 Teacher of Preparatory and Calisthenics
1867-1870 Accountant and Teacher of Gymnastics
1874-1876 Teacher of Botany and Gymnastics

[1] It was only after 1880 that most of the schools of physical education were organized. By 1889 there were the following schools: Turner School, Milwaukee; Sargent School; Anderson School; Boston Normal School of Gymnastics; and summer schools at Harvard, Chautauqua and Turner School, Milwaukee: From Physical Training by E. M. Hartwell, U. S. Bureau of Education, Washington, 1889, p. 550.

[2] Beecher, C. E., *Physiology and Calisthenics,* published by Harper Brothers, Boston, 1856.

Voarino, Signor, *A Treatise on Calisthenic Exercises Arranged for the Private Tuition of Young Ladies,* published in London, 1827. Reviewed in the *American Journal of Education,* Vol. II, 1827, p. 428.

Hamilton, Gustavus, *The Elements of Gymnastics for Boys and Calisthenics for Young Ladies,* published in London, 1827. Reviewed in the *American Journal of Education,* Vol. II, 1827, p. 428.

Huntington, H. and F. I., *Calisthenics for Young Ladies in Schools and Families,* published at Hartford, Conn., 1832. Reviewed in the *American Annals of Education* in January 1832, p. 86.

*Calisthenie ou Gymnastique des Jeunes Filles,* published in Paris, 1828. Reviewed in the *American Annals of Education,* May 1831, p. 229.

1877-1878 Accountant and Teacher of Gymnastics
1879-1880 Teacher of Latin and Gymnastics
1882-1883 Teacher of Mathematics and Gymnastics

In the years omitted no teacher of gymnastics was listed.

At Mount Holyoke, the oldest of the twelve institutions, the teachers were listed, but no titles were given until 1879 when Zoölogy and Gymnastics were taught by one person. In 1881-1882, the department was increased to two by the addition of the teacher of Mathematics and Gymnastics. The next assistant combined Botany and Gymnastics.

This type of combination teaching was not peculiar to Rockford and Mount Holyoke. It was also found in the following colleges:

| College | Year | Combination of subjects |
|---|---|---|
| Elmira | 1866-1890 | History and Gymnastics |
| | 1891-1892 | Elocution and Physical Culture |
| | 1893-1914 | Elocution and Physical Culture |
| Wellesley | 1876-1877 | Registrar and Teacher of Gymnastics |
| | 1877-1881 | President's Assistant and Teacher of Gymnastics |
| Vassar | 1878-1879 | Assistant to lady principal and Gymnastics |
| | 1879-1882 | English Composition and Gymnastics |
| Wells | 1881-1882 | History, Gymnastics, Librarian |
| | 1888-1889 | Physiology and Physical Culture |
| Smith | 1883-1887 | Elocution and Gymnastics |
| Miils | 1897-1898 | Latin and Physical Culture |

*Department Organization.* Until a full time teacher of physical education was employed and continued to be employed by a college it cannot be said that a department had been organized. Chart number 7 shows the order in which the departments of physical education were organized at the twelve colleges.

The increase of the members of the department is most clearly shown in chart form. This chart (number 8) begins with the year 1885 as prior to this date no department had more than one instructor giving entire time to physical education. The growth of the department in two of the colleges is not comparable to the others, for these—Wellesley and Mills—have introduced major departments, which have, in both cases, greatly augmented the staff. They are nevertheless included since they have combined the generalized work of the college with the specialized training which they offer.

CHART NUMBER 7

DEPARTMENTS OF PHYSICAL EDUCATION

| Year in which the college began and continued the custom of employing full time teacher of physical education | College | Year in which the institution opened |
|---|---|---|
| 1881 | Wellesley | 1876 |
| 1883 | Vassar [3] | 1865 |
| 1885 | Bryn Mawr | 1885 |
| 1887 | Smith [3] | 1875 |
| 1888 | Goucher | 1888 |
| 1891 | Mount Holyoke | 1837 |
| 1892 | Radcliffe [4] | 1879 |
| 1892 | Rockford | 1849 |
| 1899 | Mills | 1871 |
| 1909 | Wells | 1868 |
| 1914 | Elmira | 1855 |
| 1918 | Barnard [5] | 1889 |

CHART NUMBER 8

INCREASE IN STAFF OF DEPARTMENTS OF PHYSICAL EDUCATION

| | 1885 | 1890 | 1895 | 1900 | 1905 | 1910 | 1915 | 1920 | 1925 | 1929 |
|---|---|---|---|---|---|---|---|---|---|---|
| Barnard [5] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 7 |
| Bryn Mawr | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Elmira | ½ | 1 | ½ | ½ | ½ | ½ | 1 | 1½ | 2 | 2½ |
| Goucher | 0 | 2 | 3 | 2 | 2 | 2 | 3 | 5 | 6 | 6 |
| Mills | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 3 | *6 | 5 |
| Mt. Holyoke | ½ | 1 | ½ | 2 | 2 | 4 | 5 | 6 | 6 | 6 |
| Radcliffe | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3½ |
| Rockford | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 |
| Smith | ½ | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Vassar | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 4 | 5 | 6 |
| Wellesley | 2 | 2 | 2 | 2 | 2 | *10 | 12 | 15 | 13 | 13 |
| Wells | 0 | ½ | ½ | 1 | 1 | 1 | 1 | 1 | 1 | 2 |

*Major department started.

Chart number 8 does not show the increase in staff in proportion to the increase of students. The actual increase of instructors per student is of more significance than the increase in numbers of the staff. The simplest way to compare the two, number of students and number of instructors, is to show the number of students per instructor in each decade. Chart number 9 shows the number of pupils per instructor in each college—that is, the under-

[3] Both Vassar and Smith had full time teachers of physical education before this date, but this practice was not continued. It is true that Vassar, with the exception of the years 1878 to 1883, and Smith with the exception of the years 1883-1887, had full time teachers of physical education from the time the colleges opened, Vassar in 1865 and Smith in 1875.

[4] Radcliffe students were taught gymnastics by Dr. Sargent from 1881 to 1892.

[5] The physical education of the Barnard students was taught by another branch of Columbia University, Teachers College, 1903 to 1907, and was continued there from 1907 to 1917 under an instructor listed under the course in the Barnard Catalogue but not on the Barnard faculty. In 1918 the Barnard department members are first listed as members of the Barnard faculty.

graduate enrollment divided by the number of instructors of physical education.

CHART NUMBER 9

NUMBER OF STUDENTS PER INSTRUCTOR IN THE TWELVE COLLEGES

| | 1890 | 1900 | 1910 | 1920 | 1929 |
|---|---|---|---|---|---|
| Barnard | no instructors | | | 139 | 150 |
| Bryn Mawr | 69 | 169 | 112 | 123 | 131 |
| Elmira | 88 | 134 | 184 | 147 | 196 |
| Goucher | 20 | 163 | 173 | 177 | 166 |
| Mt. Holyoke | 85 | 271 | 188 | 131 | 168 |
| Radcliffe | no instructors | 135 | 151 | 196 | 190 |
| Rockford | 28 | 60 | 151 | 225 | 135 |
| Smith | 243 | 364 | 323 | 272 | 222 |
| Vassar | 226 | 224 | 351 | 272 | 192 |
| Wells | 43 | 123 | 188 | 231 | 118 |

Mills and Wellesley, already shown to differ from the others, are omitted, as they have increased their staffs rather to meet their specialized needs than to deal with the general work of undergraduate instruction.

In 1928-1929, although Smith had the largest staff of those colleges which do not have major departments, it had nevertheless a larger number of students per instructor than the other nine. Vassar with 192, and Radcliffe with 190 were next in line. Wells had the fewest students per instructor and Bryn Mawr was next. The average number of pupils per instructor was 167. This figure was based upon the number of students attending these colleges regardless of the number of years physical education was required at each college, since all students, whether they were taking required work or not, were the responsibility of the department.

*Professional Training.* In addition to the number of teachers of physical education it was interesting to note the schools of physical education which they represented. Since the professional schools sponsored different types of gymnastics, the training of the teachers indicated the type of program that would be introduced in the colleges in which the graduates taught.

*The School of Dio Lewis.* Since the school of Dio Lewis, which opened in 1861, was the first Normal School of Physical Education in the United States,[6] teachers of physical education with professional training could come only from this school. Several colleges mentioned his "light gymnastics" but it was not stated whether the colleges had teachers who actually attended his "Normal Institute

[6] Leonard and McKenzie, *A Guide to the History of Physical Education,* published by Lea and Febiger, Philadelphia, 1927, p. 261.

for Physical Education," [7] or whether the teachers planned their lessons from his book "The New Gymnastics for Men, Women and Children," published in 1862 which eventually ran through twenty-five editions.[8] In the six colleges which opened before 1876, his work was mentioned in the catalogues of all save Wells.

*The Sargent School.* Teachers trained by Dr. Dudley A. Sargent were next mentioned. These instructors were taught either at the gymnasium which started at 20 Church Street, Cambridge, Massachusetts, in 1883, or at the Harvard Summer School which was opened to men and women in 1887.[9] There have been instructors trained either by him, or in the school which he founded, in all but three of the twelve colleges. The Vassar department has had graduates of this school since 1883, while in the late eighties and early nineties there were instructors trained by Dr. Sargent at Mt. Holyoke, Rockford, Vassar, Wells, Wellesley, and Bryn Mawr. The Radcliffe students had work with Dr. Sargent himself. Those colleges which at a later date were influenced by this school are Mount Holyoke, Goucher and Barnard. The three colleges in the records of which this school was not mentioned were Elmira, Mills and Smith.

*The Boston Normal School of Gymnastics.* This school, which opened in 1889,[10] had the broadest and most continuous influence upon these colleges of any professional school. All the colleges save Vassar have had at one time or another as members of their departments, graduates of the Boston Normal School of Gymnastics or of the Wellesley College Department of Hygiene, to which the Boston Normal School of Gymnastics was transferred in 1909. This school has been continually represented at Wellesley since 1890, and at Smith and Radcliffe since 1892.

*The Anderson School of Gymnastics.* This school, later the New Haven Normal School of Gymnastics and now the Arnold College of Physical Education, had representatives at Mills, Bryn Mawr and Goucher between 1900 and 1910.

*Delsarte's Physical Culture* is mentioned at Rockford and Elmira where elocution and physical education were combined.

*Foreign Schools of Physical Education.* Two colleges have had on their staff instructors trained at foreign schools. From 1890 to 1916 there were teachers trained at the Central Institute

[7] Leonard and McKenzie, *A Guide to the History of Physical Education,* published by Lea and Febiger, Philadelphia, 1927, p. 260.
[8] *Ibid.,* p. 263.
[9] *Ibid.,* pp. 356-357.
[10] *Ibid.,* p. 360.

of Gymnastics at Stockholm on the Goucher staff. They have also had continuously from 1897 to 1927 as a member of their staff a graduate of Madame Österberg's School at Dartford, England. Bryn Mawr, from 1904 to 1927, had as its Director a graduate of the British College of Physical Education.

*Teachers College, Columbia University.* It was only within the last fifteen years that Teachers College, Columbia University, had been represented in these departments. But since that time there had been graduates of this college in the departments of all but Radcliffe.

Of late the colleges had been inclined to have a staff whose members have had diversified training. It was therefore usual at the time of this study to find graduates of several schools listed in one department.

*Schools of Physical Education Recently Established.* Of the more recent schools, the Boston School of Physical Education has the greater number of graduates in these college departments. The Central School of Physical Education of New York ranks second. Some graduates of the major department of Physical Education at the University of Wisconsin are also found in this group.

It was of interest in this connection to observe where the directors of these departments had taken their training.

| | |
|---|---|
| Teachers College, Columbia University | 2 |
| Teachers College and Wellesley, Hygiene | 2 |
| Teachers College and New York University | 1 |
| Sargent School of Gymnastics | 1 |
| Sargent School and Enebuske | 1 |
| Wellesley College, Department of Hygiene | 1 |
| The University of Chicago and Yale Summer School | 1 |
| The University of Wisconsin | 1 |
| Boston School of Physical Education | 1 |
| No Training in Physical Education | 1 |
| | 12 |

*Increased Demand for Academic Background.* It is apparent from the study of the faculty lists in the college catalogues that the number of teachers of physical education holding college degrees has steadily increased.

In the days when the teacher combined instruction in gymnastics with that in other subjects it was not unusual to find her possessed of a degree or two. Two persons with the degree of Ph.D.

taught gymnastics, among other things, at Mount Holyoke in 1889-1890. The M.D. degree was not unknown in this department.

When instructors trained to teach physical education were appointed as teachers at the colleges the number of those holding degrees dropped decidedly. Now and then an A.B. appeared in the catalogues, but it belonged more frequently to a young alumna brought in to assist, rather than one who had had professional training. It is after 1910, in fact almost after 1915, that a marked increase of degrees is to be noticed. It apparently became a definite policy to demand college trained instructors in physical education departments in the following years:

1909—Wellesley
1914—Elmira
1917—Wells
1918—Barnard, Mount Holyoke and Smith
1919—Goucher
1923—Mills and Radcliffe
1927—Rockford and Vassar
1928—Bryn Mawr

It is interesting to compare the number of staff members holding college degrees with the total number of the staff members.

CHART NUMBER 10

NUMBER OF DEGREES IN EACH DEPARTMENT COMPARED WITH TOTAL NUMBER OF DEPARTMENT MEMBERS

| College | Number on staff | Number of staff members holding degrees |
|---|---|---|
| Bryn Mawr | 3 | 2 |
| Barnard | 7 | 4 |
| Elmira | 2 (and 1 part time) | 2 |
| Goucher | 6 | 5 |
| Mount Holyoke | 7 (1 on leave) | 5 |
| Radcliffe | 3 (and 1 part time) | 3 |
| Rockford | 3 | 3 |
| Smith | 9 | 6 |
| Vassar | 6 | 2 |
| Wells | 2 | 2 |

Among the directors of these departments we find the following degrees:

| | |
|---|---|
| Ph.D. | 2 |
| M.A. | 3 |
| B.A. | 4 |
| B.S. | 1 |
| No degrees | 2 |

*Titles.* The changes which have occurred in the titles given to members of the departments of physical education are unquestionably the result of the increase of academic attainments of the individual staff members. In the early days when the teaching of gymnastics was combined with other work these teachers were listed with the rest of the faculty under the single title of "Teachers" or "Faculty."

When the college faculty was divided into various ranks with the titles of Professor, Associate Professor, Assistant Professor, Instructor and Assistant, the members of the physical education department were not given academic titles above that of assistant and later that of instructor. In fact, chart number 11 shows that in 1928-1929 the majority of the department members had the ranks of instructor. At first the member in charge of the department was not given an academic title. Instead of entering the professional ranks she became the "Director of the Gymnasium." This same title is still in use at five colleges.

CHART NUMBER 11

TITLES

College Year 1928-1929

| | Academic | | | | Non-Academic | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Prof. | Asso. Prof. | Asst. Prof. | Inst. | Asst. | Chair-man | Dir. | Asst. Dir. | Asst. Medical Dir. |
| Barnard | | 1 | | 6 | | | | | |
| Bryn Mawr | | | | 1 | | | 1 | 1 | |
| Elmira | 1 | | | | 2 | | | | |
| Goucher | | | | 1 | 4 | | 1 | | |
| Mount Holyoke | | | | 4 | | | 1 | | 1 |
| Radcliffe | | | | 2½ | | | 1 | | |
| Rockford | | | | 2 | | | 1 | | |
| Smith | | 1 | 5 | 3 | | | | | |
| Vassar | | 2 | 1* | 4 | | 1† | | | |
| Wells | 1 | | | 1 | | | | | |

* On leave.

† Same as one of Associate Professor, *i.e.*, two titles, Chairman and Associate Professor were given to the member in charge.

The titles held in the college year 1928-1929 by the members of the departments of physical education in the twelve colleges are listed above. The Directors of Physical Education had the following titles:

Director of Physical Education.....Bryn Mawr
Goucher
Mount Holyoke
Radcliffe
Rockford

Associate Professor of Physical Education.....Barnard

Associate Professor of Hygiene and Physical Education .....Smith

Associate Professor and Chairman of Physical Education .....Vassar

Professor of Physical Education.....Elmira
*Mills

Professor of Hygiene and Physical Education.....*Wellesley

Professor of Health Education.....Wells

* Major departments.

*Titles and Degrees.* It is interesting at this point to compare the titles of the Directors and the degrees which they held. Of the three full professors, two had the degree of Ph.D. and the other the degree of Master of Arts. Of the three Associate Professors, two held the degree of Bachelor of Arts and one the degree of Master of Arts. Of the five Directors of Physical Education, two had the degree of Bachelor of Arts, one had the degree of Bachelor of Science, and two had no degrees. This state of affairs would indicate that the advancement made by the Directors of Physical Education in relation to academic titles was based, to some extent at least, upon academic achievement.

*Summary:* It has been shown that the number of those teaching physical education in each college had grown from one teacher, who combined the teaching of physical education with other duties, to departments ranging from six to thirteen members. At the same time the enrollment of students has increased so that even with an increased staff there were many more students per instructor in 1928-1929 than in 1890-1891, at all the colleges except Smith and Vassar. So that the actual increase of staff has not kept pace with the increase of the student body.

The professional training of the staff has had a marked influence upon the type of program that the colleges have sponsored. The teachers from Dio Lewis, from Dr. Sargent, from the Boston Normal School of Gymnastics followed one after another until the 1928-1929 when a diversity of training was found among the staff members, doubtless due to the many excellent schools of physical education from which instructors could be obtained. In

the past fifteen years Teachers College, Columbia, has been well represented at the colleges.

Not only have the professional schools for training teachers of physical education improved but also the standard of academic background for teachers of physical education is higher than in previous years. This is indicated by a demand for a first degree for all teachers and for a second and even third degree for those in charge of departments.

As the result of better academic standing, there is a tendency on the part of the colleges to grant academic titles above the rank of instructorship to members of the department of physical education.

As the departments have developed so the need has grown for careful organization of department affairs. The problems of organization will be dealt with in the following chapter.

# CHAPTER VI

## DEPARTMENT ORGANIZATION

The first physical education classes required little in the way of organization. A teacher and a hall were provided and a lesson was prepared. The attendance of the students was optional.

It was only after 1890 that the number of those teaching physical education increased sufficiently to justify the name of a department.[1] It was after this same date that the gradual broadening of the program and a corresponding increase of equipment occurred. From one activity the program of the larger colleges grew to twenty-five.[2] From one small hall the equipment grew until it included in several cases gymnasium buildings with several floors, showers, a swimming pool, athletic fields, riding ring, stables, boat houses, and outing cabins.[3] As a result the organization of the department of physical education became extremely complex.

In the earlier days, as well as at the present time, there have been four groups of people with whom the organization of the department has concerned itself. They are the department members, the students, the department of the College Physician and the college administration. The efficient department seems to have been the one which was closely in touch with all four groups. A department which was so adjusted could fulfill the needs of the students and in so doing carry out the plans and instructions of the staff, the medical department and the administration. The development of department organization will be discussed in relation to these four groups of persons.

### I. Matters of Organization Which Concern Members of the Department of Physical Education.

The organization of the teachers of physical education by the college into a department was a fairly recent development. There were but two colleges that had a department exceeding two members in 1900. In 1910 five of the colleges had increased their departments to more than two. In 1920 this number had increased

[1] See chart number 8, page 49.
[2] See chart number 3, page 32.
[3] See chart number 5, page 37, and chart number 6, pages 44-45.

to eight, and in 1929 all but one college had a department exceeding two members.[4] It was only with the increase of staff that organization was needed. Such matters as schedules, programs, plans of or reports on material taught, grades and reports on students, and the transference of records have multiplied as the departments have grown.

*Schedules.* It has been the duty of the directors of physical education in most cases to plan the schedules of the department members. In a few colleges this is done by the Registrar.

At first these schedules were a simple matter, for they included only gymnastic classes and remained the same throughout the year. Gradually they have come to include a great variety of activities which must be changed three or four times during the college year. These changes occur for the fall, winter and spring seasons. In some cases a second change is made in the winter term.

*The program* was at first entirely the responsibility of the director of the department but has become the concern of the department members. In some cases members of departments are appointed as chairmen for general groups of activities such as sports, dancing and gymnastics, but more frequently the department members are responsible for some one particular sport or activity.

*Plans or Reports of Work.* In one college the instructors were asked to give the head of the department an outline of the plan of work they expected to follow in teaching their classes.[5] In several other institutions a report of the work was requested at the end of the season.[6]

*Student Reports and Grades* have now become a part of the department organization which concerns the members of the staff. It was only through the efforts of the early directors of physical education that such grades and reports appeared upon the students' cards, since physical education was not an academic subject. The standard for these grades was set through general department discussion but the final decision as to the progress of the student has had to be made by the individual instructors.

*Records.* As the complexity of the records and other clerical matters of the departments increased, a department secretary was added to the staff. Such a person was of particular importance in matters of organization. She both gave and received much of the information for the department. She was in charge

[4] See chart number 8, page 49.
[5] Smith.
[6] Bryn Mawr, Vassar.

of the records and transfers. Of the twelve, nine departments were so fortunate as to have a secretary.[7] She has relieved the other department members of a great deal of detail which formerly took that time which might have been spent more profitably upon the improvement of teaching material and method.

### II. Matters of Organization Which Concern the Students.

From the optional attendance at gymnastic classes has developed the requirement of a certain number of hours of physical education.[8] This requirement has necessitated the allotting to physical education of a definite number of hours in the students' general schedule.

In the early days of physical education gymnastic classes were scheduled through the office of the Registrar. Sports and games were managed by the Athletic Association in most cases under the supervision of the department of physical education, and were played whenever the students could find free time for them.

The first change came when fall and spring sports became a recognized part of the physical education schedule. At this time gymnastics were still the only activity in the required schedule in the winter.

The second change came when athletics and games were accepted as a part of the schedule for the winter term. The result was that from four to ten different activities had to be scheduled for the winter as well as for the fall and spring.

One more step resulted in further complications in the schedule of the students. Each activity has been divided into various sections in order to group students according to their skill and knowledge of the activity. These divisions run from two sections, beginning and advanced, to five sections,—in swimming—beginning, low intermediate, high intermediate, advanced and Red Cross. Three sections, beginning, intermediate and advanced, are to be found most frequently. Such division obviously vastly increased the number of sections of the sports offered to the students.

The Registrar scheduled the hours for physical education as she did the academic classes. In addition in some of the colleges the students registered for physical education activities at the gymnasium at which time they chose the hour of their sport section. At this time the hour for physical education might be shifted into any hour which was open on the students' schedule. Unless some

[7] All but Goucher, Rockford and Wells.
[8] See below, page 71.

such leeway was given it was difficult for the students to take the kind and grade of activity which would be most beneficial for them.

*Activity Ratings.* The physical condition of the students was another matter which necessitated schedule adjustments. Since the introduction of the work of Dr. Sargent in the eighties some form of physical examination has been required. The system of Dr. Sargent dealt with the individual and did not require group classification.

When Swedish gymnastics were introduced in the early nineties, certain students were excused from the more vigorous work, but no definite classifications were used. When basketball was introduced in the same decade and burst into immediate popularity, special examinations were required for those who played on teams. Gradually there evolved group ratings for the students which described their physical condition. These groupings had different names in different colleges but were fairly uniform. They indicated whether the students were to be unrestricted, somewhat restricted or very restricted in the activities they might elect.

*Classification of Activities.* As a result of the student classification the activities in the program had to be classified that the student might know what activities she might elect. At Vassar, as early as 1876, the sports, which included rowing, baseball and quoits, were grouped as "most strenuous"; walking was cited as "a little less strenuous" and as "least strenuous" archery and croquet.[9] Later it was popular to classify them as major and minor sports, but as such a connotation seemed to reflect unfavorably upon the minor sports, this was abandoned. The 1928-1929 classifications corresponded with the student classification. The unrestricted group was free to take any of the activities; the somewhat restricted group might take all but the most vigorous sports; and the very restricted group might take only the least active sports or might be assigned to individual or corrective gymnastics.

The activity ratings of the students were subject to change which necessitated the frequent transfer of the student from one activity to another. Various methods were employed to accomplish this with the least possible delay. Those departments which could change the students' hour for physical education without having the matter go through the office of the Registrar had the least difficulty.

*Department Information and Regulations.* All the departments agreed that it was extremely important that the students be

[9] *Vassar Miscellany,* Oct. 1915, p. 165.

well informed on the matter of department customs and regulations. These rulings had evolved from the experience of the department members and were compiled in an attempt to conduct department affairs in the most efficient way.

At first they were few enough to be told to the classes when they first met. As the regulations increased it became customary to publish them. Several methods were employed. In one college a department bulletin was issued;[10] in others a sheet of information was printed and given to the students.[11] In all cases printed material which explained the regulations was given to the students and they were held responsible for this information. In most institutions such information was discussed with the students by the director of physical education.[12]

The organization of sports was in many colleges done in part at least through the student Athletic Association. This will be discussed in the chapter on "Athletic Associations and Competition."

### III. The College Physician and the Department of Physical Education.

The third group of people with whom the organization of the department of physical education concerns itself is that composed of the College Physician and other doctors of the college.

Following upon the somewhat easy-going days of calisthenics and light gymnastics, physical education at length established itself upon a more scientific basis. In fact the scientific background became established so firmly that it was only after 1900 that the word æsthetic dared to appear in the descriptions of courses in physical education. Dr. Sargent based his work upon careful study of the muscles. Then came the Swedish system which was also anatomically analytical. This, plus an increasing emphasis on physiology, drew attention to the close relationship between the medical profession and physical education.

In several colleges it was believed at first that a woman who had had training in medicine would be the ideal teacher of physical education. In practice, however, in each case a second person was employed to do the actual teaching of physical education. For example in the prospectus of Smith College for 1873, it was stated that "exercises would be prescribed under the direction of an edu-

[10] Mills.
[11] Smith, Goucher, Wellesley.
[12] Information gained on visit to the colleges in spring of 1929.

cated lady physician." [13] But the catalogue issued the second year of the college stated that the exercises were prescribed by "a competent lady teacher." [14]

Other colleges made somewhat the same statements. Bryn Mawr had as first "directress" a graduate of Dr. Sargent's school who, while she taught at Bryn Mawr, studied at the Women's Medical College of Philadelphia from which she received her medical degree in 1889.[15] As soon as she had received her degree she became the medical examiner and another person was employed to teach physical education.[16]

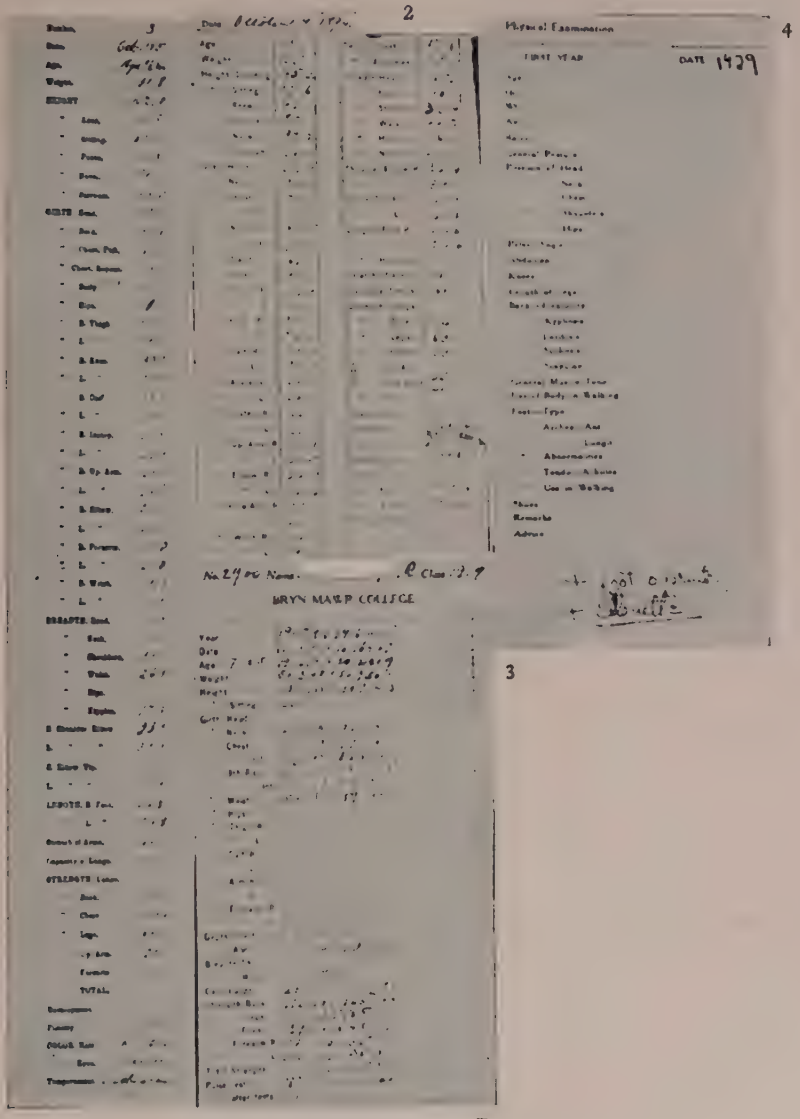
At Goucher the catalogue stated that the physical education of the students would be in charge of "a graduate in medicine and a specialist in hygiene, who had fitted herself for this department by study in the best institutions in America and Europe." [17] But though a physician was in charge the actual teaching of physical education was done by an "Instructor of Gymnastics." [18]

In other words it became evident that the two fields were not identical and that both a physician and an instructor of physical education were needed. Since the early days no attempt has been made in the twelve colleges to combine the duties of the physician and the teaching of physical education.

Medical service and health education developed with the same rapidity as did physical education. The medical and the physical education, or Health and Physical Education departments were united and separated at various times. Goucher, which had for years a combined department, had in 1928-1929 two separate departments. Radcliffe, Smith and Wells, which had for years separate departments, had in the same year combined departments. The other nine colleges had "coöperative" but separate departments. The relationship was somewhat closer when a system of gymnastics based on medical diagnosis was the most important, if not the only, work of the physical education staff. With the more recent program based not only upon physical training but also upon instruction along social and æsthetic lines, the emphasis in the program of physical education changed. The physical examination was still the basis of the work. However, once the capacity of the student had been established, her training was no longer limited

[13] *The Prospectus of Smith College,* 1873, p. 5.
[14] *Smith College Official Circular No. 4,* Oct. 1877, p. 7.
[15] *Bryn Mawr College Program,* 1889-1890, p. 4.
[16] *Ibid.,* 1890-1891, p. 4.
[17] *Woman's College of Baltimore,* Pamphlet No. 5, Article 5, p. 3.
[18] *Ibid.,* 1889, p. 7.

to the remedial field but was given by means of various activities which were as vigorous as her health rating permitted.




PHYSICAL EXAMINATION BLANKS
(1) 1885 (2) 1895 (3) 1919 (4) 1929

Both departments increased tremendously in scope. As a result, the identity of each profession became more pronounced, although their mutual dependence remained. While exercise was

an essential part of health education it was at the same time the tool by which education through activities was given. The two fields were not identical but had many things in common. Physical examination, health or activity ratings and their changes, excuses for absences due to ill health, and in several colleges the teaching of hygiene, were those things which the two departments had in common.

*Physical Examinations.* Physical examinations for students have been mentioned in the catalogues of the colleges for women since the eighties. The forerunner of the actual statement of an examination is the reiteration that the greatest care will be taken to prevent over-exertion. Wellesley, only, assumed no such responsibility, when early in her career she stated that the college did not take invalids,[19] that ill health was not due to study but to carelessness and neglect,[20] and that the college was intended only for students who had vigorous health.[21]

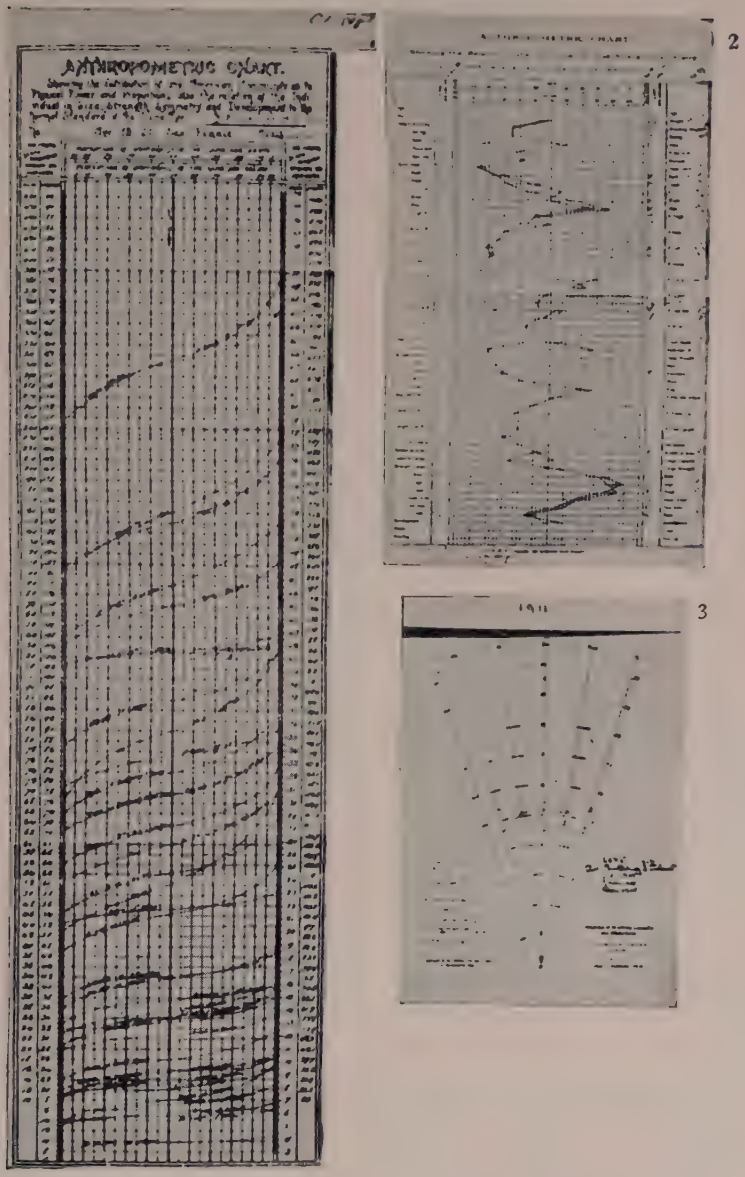
*Statements Which Mention Physical Examinations* appeared in the catalogue of the various colleges in the following order:

| College | Physical Examination | College opened |
|---|---|---|
| Wellesley | 1882 | 1876 |
| Vassar | 1884 | 1865 |
| Smith | 1884 | 1875 |
| Rockford | 1885 | 1849 |
| Bryn Mawr | 1885 | 1885 |
| Goucher | 1888 | 1888 |
| Mount Holyoke | 1891 | 1837 |
| Radcliffe | 1892 { examined before this at the Sargent Gymnasium } | 1880 |
| Elmira | 1893 | 1880 |
| Wells | 1898 | 1868 |
| Mills | 1902 | 1871 |
| Barnard | 1906 | 1889 |

*Details of Early Examinations.* Two parts of the physical examination given by the teachers of physical education have developed. First the anthropometric examination which had to do with the tests and measurements of the students, and second the orthopedic examination or, the examination of the feet and spine. These two examinations were exclusive of the medical examination given by the physicians.

*The Anthropometric Tests and Measurements.* The number and detail of these early measurements given by the directors of the gymnasiums were amazing. The book into which the measure-

[19] *Wellesley College Calendar,* 1876, p. 24.
[20] *Ibid.,* 1878, p. 46.
[21] *Ibid.,* 1880, p. 243.




ANTHROPOMETRIC CHARTS (1) 1898, (2) 1896, (3) 1911

ments of 1885 at Bryn Mawr were copied, had a list of fifty tests or measurements to be taken of or by each student. Later cards were substituted for the book.

The measurements first mentioned were called the "Sargent measurements" and strength tests. Later tests advocated by the "American Society for the Advancement of Physical Education" [22] were adopted by Wellesley in 1892, by Vassar in 1889, and Mount Holyoke in 1891.

*Charts* were popular and were used to show the student her physical condition. Two of Dr. Sargent's and one of Dr. Enebuske's are reproduced on page 65.

At Smith a scale showing the average score or measurements of a group of students was drawn up as a basis of showing the deviation from the normal of the individual student.[23] A similar scale made at Oberlin, was used at Bryn Mawr in 1898.[24] At Wellesley a special study was made of the results of such tests.[25] At Vassar in 1921 and 1927 the measurements were used for a study made by the class in statistics.[26]

At the same time each student had at least one medical examination and as sports became more popular and competition more vigorous, the number of examinations was increased. Not only students just entering college were examined but in addition examinations were given to all team members before any season of vigorous competition. Statements to this effect were made in the catalogues of Bryn Mawr in 1895,[27] of Mills in 1911,[28] and of Goucher in 1915.[29] The examinations first designed to protect the more athletic group, came to be required with greater frequency for all students. In 1928-1929 they were required at the twelve colleges for all students with the frequency listed below.

*The Orthopedic Examination.* The orthopedic examination, which concerned itself with the back and feet, was, at first, a small part of the medical examination. Later, however, it became a

[22] See above p. 10.

[23] Anthropometric table, Department of Physical Training, Smith College, compiled by Elizabeth Wright, Director Senda Berenson.

[24] Anthropometric table, Department of Physical Training, Oberlin College, measurements taken and compiled by Delphine Hannah, M.D., and Alberta Josephine Cory, Oberlin College, Oberlin, Ohio.

[25] A study by Anna M. Wood, Wellesley College, on the class of 1891, Hygiene Library, Wellesley College.

[26] The Physical Development of Vassar Students, Studies made by Class in Statistics, Vassar College, typed copy, property of Miss Alice Belding, Chairman of the Department of Physical Education, Vassar College.

[27] *Bryn Mawr College Catalogue,* 1895-1896, p. 107.

[28] *Mills College Catalogue,* 1911-1912, p. 96.

[29] *Goucher College Catalogue,* 1915-1916, p. 63.

CHART NUMBER 12

FREQUENCY OF PHYSICAL EXAMINATIONS

| Year | Freshman | Sophomore | Junior | Senior |
|---|---|---|---|---|
| Barnard | 2 | Inspection each fall | | 1 |
| Bryn Mawr | 2 | | | 1 |
| Elmira | 1 | Reëxamine each fall all below A grade | | |
| Goucher | 2 | | | 1 |
| Mills | 2 | 2 | | |
| Mt. Holyoke | 2 | 1 | | 1 |
| Radcliffe | 2 | Health consultation each year | | |
| Rockford | 1 | 1 | 1 | 2 |
| Smith | 1 | Health consultation each year | | 1 |
| Vassar | 2 | 1 | 1 | |
| Wellesley | 2 | 2 | 1 | |
| Wells | 2 | 2 | 1 | 1 |

part of the examination given by members of the department of physical education and developed until it was more detailed than the anthropometric examination which during the same period, had been greatly reduced.[30] In some colleges only height and weight

CHART NUMBER 13

ANTHROPOMETRIC TESTS AND MEASUREMENTS LISTED ON EXAMINATION BLANKS YEAR OF 1928-1929

| | Barnard | Vassar | Bryn Mawr | Elmira | Goucher | Mills | Mt. Holyoke | Radcliffe | Rockford | Smith | Wellesley | Wells |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Weight | x | x | x | x | x | x | x | x | x | x | x | x |
| Height | x | x | x | x | x | x | x | x | x | x | x | x |
| Height sitting | x | x | | | x | | | | | | | |
| Girth neck | x | | | | | | | | | | | |
| Chest expanded | x | x | | | | | | x | | | | x |
| Chest contracted | x | x | | | | | | x | | | | x |
| Ninth rib expanded | x | x | | x | | | x | x | | | | x |
| Ninth rib contracted | x | x | | x | | | x | x | | | | x |
| Waist | x | x | | | | | x | | | | | |
| Hips | x | x | | | | | | | | | | |
| Breadth chest exp. | x | | | | | | x | | | | | |
| Chest contracted | x | | | | | | x | | | | | |
| Depth chest exp. | x | | | | x | | x | | | | | |
| Contracted | x | | | | | | x | | | | | |
| Abdomen | x | | | | x | | x | | | | | |
| Lung capacity | x | x | | x | | x | x | x | x | | | |
| Strength legs | | x | | | | | | | | | | |
| Strength grip R. | x | | | | | x | | | | | | x |
| grip L. | x | | | | | x | | | | | | x |
| Chest | x | x | | | | | | | | | | |
| Shoulder retractors | x | | | | | | | | | | | |
| Strength forearm | | x | | | x | x | x | | | | | |
| Length of leg R. | | | x | x | x | | | | x | | | |
| Length of leg L. | | | x | x | x | | | | x | | | |
| Strength back | | x | | | | | | | x | | | |

[30] See chart number 13, p. 67, and chart number 14, p. 68.

remained of the original fifty measurements. The very definite relationship of the height, age, weight ratio to the health of the individual made the retention of these measurements essential. The following measurements checked below the name of the college show which measurements were in use in the year 1928-1929.

In the anthropometric tests which these colleges gave, height and weight were taken by all, lung capacity by seven, the ninth rib measurement by six, and chest, length of leg, and strength of fore-

CHART NUMBER 14

DETAILS OF ORTHOPEDIC EXAMINATION LISTED ON EXAMINATION BLANKS YEAR OF 1928-1929

| | Barnard | Bryn Mawr | Elmira | Goucher | Mills | Mt. Holyoke | Radcliffe | Rockford | Smith | Vassar | Wellesley | Wells |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feet | x | x | | x | x | x | | x | x | x | x | x |
| Arch anterior | x | x | x | x | x | x | x | | x | | x | |
| Long arch | x | x | x | x | x | x | x | | x | | x | |
| Pronated | x | | x | | x | | | | | | x | |
| Correction | | | | | x | | x | | x | | | |
| Ankles | | | | x | | | | | x | | x | |
| Posture | x | x | x | | x | x | | x | x | x | x | x |
| Anteroposterior | | | | | x | x | x | | x | | | |
| Head | | x | x | x | x | | x | | x | x | | |
| Back upper | | | | x | x | | | | | | x | |
| Abdomen | | x | x | | x | x | x | x | x | x | | x |
| Back lower | | | | x | x | | | | | | x | |
| Scoliosis | | x | | | | | | | | | | x |
| Kyphosis | | x | | | | | | x | | | | x |
| Lordosis | | x | | | | | | x | | | | x |
| Spine | | | | | | | | | | x | | x |
| Dorsal | | | x | | | x | | | | | | |
| Lumbar | | | x | | | x | | | x | | | |
| Scapulæ | | x | | x | | | x | | x | | x | |
| Hips | | x | | x | | x | x | | x | x | x | |
| Flexibility back | | x | x | | | x | x | x | x | | x | |
| Rotation | | | | x | | x | x | | x | | x | |
| Lateral | | | | | x | x | | x | x | | | |
| Deviation | | | x | x | x | x | x | | x | | x | |
| Functional | | | | | x | | | | | | | |
| Structural | | | | | x | | | | | | | |
| Shoulders | | x | x | x | x | x | x | | x | x | x | x |
| Type | | | x | x | | | x | x | x | | x | |
| Chest | | x | x | x | | x | x | x | x | x | x | x |
| Place of weight | | | x | x | | | | | | | | |
| Knees | | x | | x | | | | | x | | | |
| Displacement | | | x | x | | x | x | | | | x | |
| Menstrual period | x | | x | | | | | | | | x | |
| Pain in back | | x | | | x | | | | | | | |
| Neck | | x | | | | | | | | | | |
| Pelvic angle | | x | | | | | | | | | | |
| Muscle tone | | x | | | | | | | | | | |
| Vital capacity | | | | | | | | | | | x | x |
| Tendo Achilles | | x | | | | | | | | | | |

arm by four. The other measurements taken are scattered, as shown by chart number 13.

The orthopedic examinations showed more similarity than did the anthropometric examinations. In fact, the difference was rather one of detail than of content. All the colleges examined the feet and arches. It was in the examination of the spine that the greatest difference in terminology occurs. This varied from words which identified a section of the spine to those which described the type of defect or the deviation of the spine from the normal position.

The two preceding charts illustrate the present tendency to increase orthopedic and decrease anthopometric detail. Wellesley had the most detailed orthopedic examination. In fact the possible variations for which it called were so numerous that they could not all be included in the limited space of chart number 14. This is undoubtedly the outcome of the early emphasis laid upon the orthopedic side of the examination by the old Boston Normal School of Gymnastics, which later merged with the Wellesley department. If this inference be true then it is not surprising to find that the departments—namely those of Barnard, Vassar, and Mount Holyoke—colleges where the Sargent School influence was strong and where impetus was first given to the original measurements and tests, retained the greatest number of anthropometric tests. Mount Holyoke has not only retained the tests and measurements but has followed the general tendency of increasing the detail of the orthopedic examination as well. This is illustrated by the following figures showing the number of tests or measurements taken, in one case, and the number of suggestions for the orthopedic examination in the second place.

| | Anthropometric | Orthopedic |
|---|---|---|
| Barnard | 20 | 5 |
| Bryn Mawr | 2 | 19 |
| Elmira | 7 | 17 |
| Goucher | 8 | 17 |
| Mills | 6 | 15 |
| Mt. Holyoke | 15 | 35 |
| Radcliffe | 7 | 15 |
| Rockford | 6 | 8 |
| Smith | 2 | 20 |
| Vassar | 14 | 8 |
| Wellesley | 2 | 18 + many variations |
| Wells | 8 | 9 |

*Records.* One important thing to be noted on the 1928-1929 blanks was that the two types of physical examinations—namely anthropometric and orthopedic—were no longer separated. They were not only on one card, but where possible, on one side of the

card. In addition there were often questions concerning health habits.

*Posture Records.* All of these departments save one were taking posture records of some sort—silhouettographs, or schematographs or drawings of the students. These records served as guides for posture work for both instructors and students. Only one department did not employ some such device.

*Excuses.* In the early days the students were frequently excused from gymnastic work on the grounds of ill health. These excuses were mentioned in all the early catalogues. Formerly some students were excused from all forms of physical activity by "the lady housekeeper," "the lady doctor," or "the teacher of gymnastics." With the institution of "rest for credit," sun baths, and instruction in mild sports, the departments were better prepared to offer work which would be beneficial to all students and which would make the enforcement of the requirement possible. At the same time a great change had taken place in the attitude of women toward their own health. In the early days they were not expected to be able to exercise at all times. By 1928-1929 it was exceptional to find women students who could not indulge advantageously in exercise the greater part of the time.

*The Classification of Students* has been discussed in detail under matters of organization which concern the students.[31]

### IV. Organization of the Departments of Physical Education in Relation to the Offices of Administration.

Under this heading the requirement, hours, grades, credit, some classes of excuses and budgets must be considered.

*The Requirement.* The development of the physical education requirement is best shown in chart form. The chart illustrating this point begins with 1890 as, in most cases, the requirement was stated more definitely after this date. Vassar, Goucher and Wellesley had weekly requirements for exercise before this. At Goucher it began in 1888, the first year of the college, when "a minimum requirement of two half hours weekly throughout the undergraduate course" was established.[32] At Vassar in 1865, it was stated that "a suitable part of each day is set aside for exercise";[33] but in 1886 the requirement was changed to "four times weekly."[34]

[31] See p. 60.
[32] *Prospectus of the Woman's College of Baltimore,* 1888, p. 14.
[33] *Catalogue of Vassar Female College,* 1865-1866, p. 36.
[34] *Catalogue of Vassar College,* 1886-1887, p. 16.

CHART NUMBER 15

## THE DEVELOPMENT OF THE PHYSICAL EDUCATION REQUIREMENT

| College | 1890 | 1900 | 1910 | 1920 | 1929 |
|---|---|---|---|---|---|
| Barnard | Voluntary | Voluntary | 2 hours a week first 2 classes | Three times a week 2 lower classes, twice a week last 2 years | Same as in 1920 |
| Bryn Mawr | Voluntary | 4 times weekly all students | Same from Nov. 1 to May 1 | 3 hours divided into 5 periods | Twice a week 2 years plus 1 lecture |
| Elmira | Voluntary | 3 times a week first 2 classes | Changed to 3½ hours | 2 hours first 3 years | 4 times a week 4 years |
| Goucher | 2 half hours 4 years | 3 hours weekly | 160 class hours in 4 years | Same | 200 hours or 3 times a week, 4 years |
| Mills | Daily exercise in open air gym. | Same | 2 days of class work and 2 of outdoor exercise. | 2 periods of 35 minutes for same | 3 hours for 2 years (1 hr. a lecture) 2 hours last 2 years |
| Mount Holyoke | Domestic duties Daily exercise in open air and light gymnastics 2 days a week | 3 half hours for 3 lower classes | 4 times a week, 4 years, seniors unsupervised | Organized sports required of 2 lower classes | 3 times a week first 2 years (1 hr. a lecture Fresh. year) |
| Radcliffe | Voluntary | Voluntary | Voluntary | For Freshmen | 3 times a week for Freshmen |
| Rockford | Required-hours not stated | Same | 2 hours a week 4 years | Same | Twice a week 4 years |
| Smith | Voluntary | 4 half hours Nov. to spring recess | 3 half hours a week Juniors, Seniors unsupervised | 3 half hours first 2 classes | 3 hours first 2 years and may be required of Juniors and Seniors if needed |
| Vassar | 3 times weekly | Same | Same | 3 hours a week 3 lower classes | 3 hours a week first 3 years |
| Wellesley | 3 times weekly Freshmen | Same | 3 times weekly first 2 classes | 2 hours a week first 2 years | 2 hours first 2 years |
| Wells | Regular exercise | 4 times a week | 4 times a week first 2 years | Same 1 hour given to hygiene | 3 hours first 2 years |

In 1890 it was again reduced to "three times weekly." [35] The Wellesley catalogue of 1882, referred to required work, but did not state the number of hours until 1890. In five of the other nine colleges the work was voluntary in 1890,[36] while in the other four the statements were indefinite.

*Variety Within the Hour Requirement.* The last column of chart number 15 shows the condition of the requirement in 1928-1929 in hours but gives no idea of the variety in content. At Vassar all students received training in rhythmic dancing, in swimming, in apparatus work and stunts. At Goucher and at Smith, gymnastics and swimming were required. At Elmira dancing was, until recently, a requirement in the freshman year. At Rockford, team sports, individual sports, rhythmic work, clogging, or folk dancing or rhythms, and a swimming test were required. The requirements in the twelve colleges were similar as to their content but none were identical.

The greatest similarity occurred in the swimming requirements. In eight of the colleges, students who could not pass a college test were required to take swimming. This ruling has been in effect in each of the eight as follows:

| | Swimming Requirement Added | Pool Opened |
|---|---|---|
| Bryn Mawr | 1908 | 1895 |
| Wells | 1913 | 1911 |
| Goucher | 1915 | 1888 |
| Vassar | 1917 | 1889 |
| Radcliffe | 1920 | 1900 |
| Mills | 1926 | 1924 |
| Rockford | 1923 | 1921 |
| Smith | 1925 | (a small one 1892) 1925 |

Three of the colleges—Wellesley, Mount Holyoke and Elmira—which did not have pools, did not have this requirement. Barnard had a pool and encouraged swimming, but had no requirement.

*The Inclusion of Sports and Dancing in the Supervised and Required Program.* Though requirements differed as to content, all the colleges gradually introduced many varied activities into the required and supervised program. Many sports were part of

[35] *Catalogue of Vassar College*, 1890-1891, p. 69.
[36] See chart number 15, page 71

the required work before the dates given below but were not supervised. They were included in the required and supervised program in the following order:

| | |
|---|---|
| Wellesley | 1906 |
| Bryn Mawr | 1907 |
| Radcliffe | 1910 |
| Rockford | 1910 |
| Mills | 1912 |
| Elmira | 1913 |
| Goucher | 1915 |
| Mount Holyoke | 1917 |
| Vassar | 1917 |
| Barnard | 1918 |
| Wells | 1918 |
| Smith | 1925 |

*Credit.* After physical education had been established as a requirement the next step was the attempt to put it on the same basis as academic classes. It was the custom of colleges to give credit for academic classes but not for physical education. A definite campaign was entered upon to gain college credit for physical education. This had been accomplished in eight of the twelve colleges and occurred in the following order:

| | Year Credit Given | |
|---|---|---|
| Rockford | 1902 | dropped 1919 |
| Barnard | 1903 | (at Teachers College) |
| Wellesley | 1910 | |
| Mills | 1911 | |
| Smith | 1916 | asked to have same removed in 1927 |
| Wells | 1918 | |
| Vassar | 1919 | |
| Mount Holyoke | 1922 | |

The difficulty was that the credit granted was not academic credit. In other words, if physical education credit was granted, the graduation requirement was usually 120 credits plus 2 credits for physical education. The two credits for physical education did not count within the academic credit.

Such a differentiation was not surprising in colleges offering courses and degrees in liberal arts, for a general course in physical education was a matter of practice rather than theory. In addition,

in some institutions those taking a course in physical education might be taking any one of several activities, or for health reasons might be shifted from one class to another during the semester. Again, regularity being an important factor in physical education, the grading of the student was influenced by her attendance.

These points among others made the value and appropriateness of credit for a general course in physical education in a liberal arts college somewhat dubious. It was not a question of the place of the department nor the value of the work as was shown by the fact that physical education was required for all students. Even the educational value of physical education was granted in most of the colleges, but the fact remained that the general program of physical education was practical rather than theoretical and that educational as the practical work might be, it was not academic. The practice of giving academic credit for normal courses in physical education was generally accepted.

*Grades.* In the matter of grades, nine of the twelve colleges used the letters A, B, C, D and E, while three, Elmira, Radcliffe and Bryn Mawr, used "pass and fail." Excuses for absence due to other reasons than ill health came as a rule from the administrative group.

*Budgets.* Budgets had increased with the growth of the colleges. They had been administered in two different ways: either the department gave to the administration a statement of the money necessary for its running expenses, or the college gave the department a sum of money which it could administer as it chose. In certain places salaries were included in the budget or sum given; in others they constituted a separate item.

*Athletic Associations and Budgets.* At Smith and Bryn Mawr a considerable portion of the expenses for required work in sports and athletics was paid by the Athletic Associations. This was possible at Smith because, although the dues were small, $2.00, the number of students who joined the Association was large, 1,700. At Bryn Mawr the fee was large, $10.00, although the number of students was small, below 400. At Bryn Mawr the fee was deposited with the college treasurer with other student fees, while at Smith it was voted and collected by the students. The Athletic Associations at all the colleges except Wells assisted the departments somewhat in the purchase of equipment. A few even helped out in the matter of salaries.

*Summary.* The necessity for the detailed organization of the departments of physical education was due to the increase of equip-

ment and staff, and to the broadening of the program of activities. There were found to be four groups of persons with which the organization of physical education concerned itself. These four were the department members, the medical officers, the administration and the students. The efficient departments were those which could carry out the instructions of the first three groups and see that they were made clear to the fourth. The student athletic association was in many institutions most helpful in assisting in matters of organization relating to the students. So important was this organization that for the discussion of it a special chapter has been set aside.

# CHAPTER VII

## ATHLETIC ASSOCIATIONS AND COMPETITION

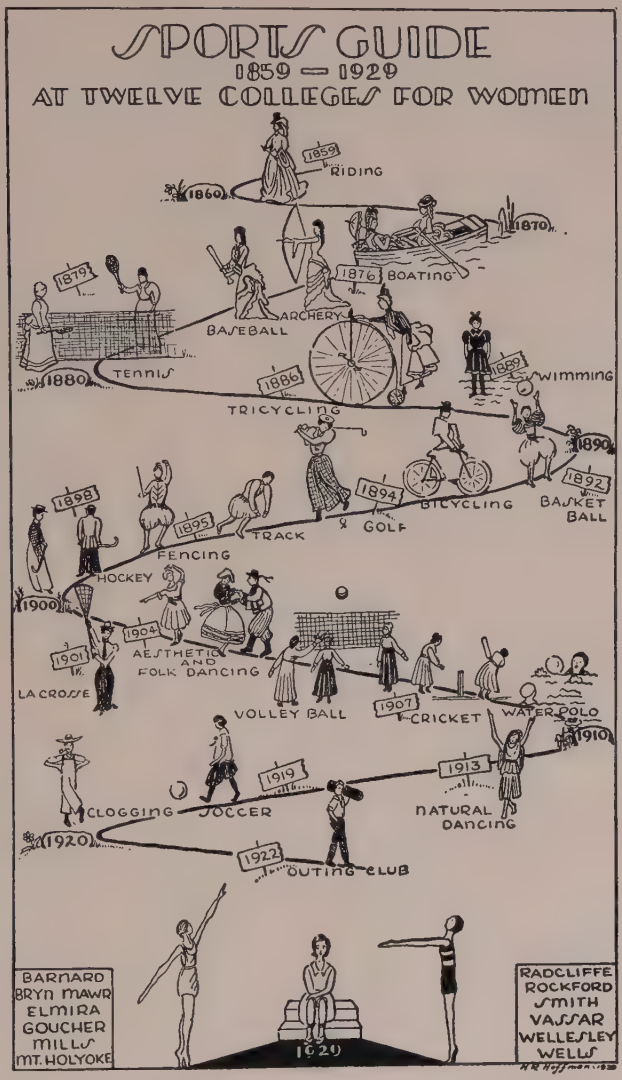
### I. Athletic Clubs.

In 1890 various types of Athletic Clubs such as Bicycle Clubs, Walking Clubs, Tennis and Boating Clubs were popular. After 1892 Basketball Clubs were organized. The two sports which had continuous popularity were tennis and basketball. Descrip-

The Rinkle Polo Club, Mount Holyoke College, 1895

tions of the early tennis tournaments are the first records of competition for women in these colleges. Tennis was introduced as early as 1879 but tournaments were not mentioned until after 1890. Basketball was introduced at Smith College in 1892, and was very popular from the beginning. These two games introduced a new element into sports for women—namely, that of competition,—which had not been present in the boating, archery, croquet, and walking days of previous years. As a result, both of this new factor and of an increased interest in sports, Athletic Associations were started. In the twelve colleges, the first association was founded at Bryn Mawr in 1891, while the last was organized at

Rockford in 1911. Ten of the twelve associations were organized between 1891 and 1901.




## II. The First Days of the College Athletic Associations.

At Barnard a bicycle club, a tennis club, and a basketball club which were in existence in 1898 were united into an Athletic Association in 1900.[1]

[1] *Barnard Mortar Board,* 1900, pp. 46-49.

The association at Bryn Mawr was organized in 1891 for the purpose of keeping up athletic equipment and running tennis tournaments.

At Elmira in 1897 there was a tennis club, a bicycle club and a basket ball club.[2] Two years later the boat club was listed.[3] In spite of these separate organizations, there had been an Athletic Association since 1895 for the purpose of procuring coaches and equipment for basketball.[4]

At Goucher the Athletic Association was organized in 1896 and had "the gymnastic drill," swimming, basketball and tennis as the sports on April 23, 1896, its first athletic day. The name was later changed to field day. All track events were omitted.[5] Quite outside this were the short-lived Golf and Hockey Clubs, organized in 1898, which, however, survived only for a month.[6]

At Mills, in 1901, the Athletic Association, it was stated, was "an organization which controls and supplies all athletic sport of the school." [7]

At Mount Holyoke a tennis club was organized in 1892 for the purpose of conducting a tournament.[8] By 1895 there existed also "the Heavy Gym Club," two crews, "the Views Afoot Club," the "Ramblers" and basketball teams.[9] The Athletic Association was established the following year as was also "the Rinkle Polo Club," an organization to sponsor ice hockey at a rink presented to the college by John D. Rockefeller in 1895.[10]

At Radcliffe the Association, which was called "the Athletic Club," was organized in 1895.[11]

At Rockford it was not until 1911 that the Athletic Association was organized. Its purpose was to secure more equipment and space for athletics.[12] As early as 1891, however, tennis and

[2] *The Iris* (Elmira), 1897, p. 66.
[3] *Ibid.*, 1899, p. 79.
[4] *The Sybil* (Elmira), June 1895, p. 253.
[5] *The Kalends* (Goucher), March 1896, p. 169; May 1896, p. 196; April 1897, p. 168.
[6] *The Kalends* (Goucher), Jan. 1898, p. 92, and Feb. 1898, p. 115.
[7] *Catalogue of Mills College,* 1901-1902, p. 42.
[8] *The Mount Holyoke,* April 1892, p. 118.
[9] *The Llamarada* (Mount Holyoke), 1895, published by the class of 1896, pp. 123-132.
[10] *The Llamarada* (Mount Holyoke), 1896, published by the class of 1897, pp. 100-103.
[11] A letter from Mrs. Soule, former director of the department, and the *Reports of Radcliffe College,* 1902-1903, p. 55.
[12] *The Cupola* of 1912 (Rockford), p. 45.

archery clubs were mentioned,[13] and in 1897 a basketball club was organized.[14]

In the Smith College Catalogue of 1895-1896 appeared the statement that "the Gymnasium and Field Association" was an organization the aim of which was "to cultivate interest in physical education and outdoor sports." [15] The organization occurred in 1893.

At Vassar the Athletic Association was organized in 1895 to take charge of Field Day and basketball.[16]

Wellesley organized its Athletic Association in 1896.[17] This Association was "to control athletics and athletic fêtes such as Float, Ice Carnival, etc." [18] Representatives of rowing, golf, tennis and basketball were included on the board.

At Wells a boat club was established in 1896, a basketball club in 1896, a golf club in 1898, a tennis club in 1901, and a riding club in 1902.[19] All these clubs except those for tennis, basketball and boating had disappeared before 1908 when the association was organized.

All but two of the Associations were organized between 1891 and 1901. The following table shows the dates of the organization of each:

| | | | |
|---|---|---|---|
| Bryn Mawr | 1891 | Barnard | 1897 |
| Smith | 1893 | | |
| Elmira, Radcliffe | 1895 | Mills | 1901 |
| Vassar | | Wells | 1908 |
| Mt. Holyoke, Goucher, Wellesley | 1896 | Rockford | 1911 |

### III. The Development of Organization Within the Athletic Associations and Their Relationship to the Departments of Physical Education.

The first type of organization was in some instances very similar to the present arrangement of a board composed of students

[13] *Catalogue of Rockford College,* 1891-1892, p. 46.
[14] *Ibid.,* 1897-1898, p. 47.
[15] *Offical Circular Smith College,* 1895-1896, p. 31.
[16] *The Vassar Miscellany,* October 1915, p. 167.
[17] Converse, Florence, *The Story of Wellesley,* Little, Brown and Co., 1915, p. 218.
[18] *The Wellesley News,* October 10, 1901, p. 4, and Jan. 23, 1902, p. 3.
[19] *The Cardinal* (Wells College), 1896 (pages not numbered), 1897, pp. 70-85; 1898, p. 80; 1906, p. 23; 1910, p. 72.

and a faculty adviser. In three colleges—namely Goucher,[20] Smith,[21] and Mount Holyoke [22]—the college physician or director of physical education was the first president of the Association. The organization in these three colleges changed in a few years to that with the usual student officers and representatives of various sports. At Mount Holyoke at the outset there was a military note in the make-up of the board. The college physician was the president, the director of the gymnasium was the director, and students held the positions of secretary, treasurer, Captain and first, second and third Lieutenants.[23]

When competition in sports for women first appeared at Wellesley, Mount Holyoke, Goucher, Mills, Rockford, Elmira, Bryn Mawr and Smith, athletics were made the responsibility of the departments of physical education.

But in several colleges the associations were organized quite independent of the department of physical education. For example, at Barnard there was no physical education department until 1918, and not even gymnastics at Teachers College until five years after the Barnard Athletic Association was organized. It was only recently that this Athletic Association had come to have a close relationship with the department of physical education.

At Wells College the Athletic Association had never been under the supervision of the department of physical education. In 1928-1929 it had charge of all competition and that part of the sports program which was not a part of the required or supervised work of the department. Those students who took the sports conducted by the Athletic Association were excused from work supervised by department members. The Association hired an outside coach for hockey, but did the rest of the coaching themselves. They had no faculty members on the board.

This arrangement did not hold in any other college. In the remaining eleven, there was a close relationship between the department and the student association. Such a relationship was, in some of the colleges, a fairly recent achievement. It was also true that the associations were less coöperative in some colleges than in others.

The association at Bryn Mawr has had a unique history. The students have handled large sums of money, and have not only

[20] *The Kalends* (Goucher), March 1896, p. 169.
[21] *Smith College Monthly*, Oct. 1895, p. 47.
[22] *The Llamarada* (Mount Holyoke), 1897, published by the class of 1896, p. 103.
[23] *Ibid.*

First Basketball Team at Mount Holyoke College, 1897

Costume of 1928-29 for Sports and Gymnastics, Smith College

furnished equipment, but have put in fields and courts, and kept up the grounds. They have been strict disciplinarians in their administration of sports, for they have reprimanded, at board meetings, those who disobeyed their rules, and have exacted fines for offenses. They have decided on their own costumes and have been very conservative in their choice. They have met on the field, in the gymnasium, in students' rooms, in the office of President Thomas. They have reëlected their own officers. One year they even thought of securing a charter to give them greater independence. But this did not pass.[24] They have been coöperative with the department, and yet they have remained an independent group.

At Elmira in 1900, the Athletic Association was open to all members of the college and was under the direction of the department of Physical Training.[25] By 1924 it furnished a part of the equipment.

At Goucher the Director of the department was the first president of the Athletic Association which by 1915 "finances sports, runs games, awards cups, letters and numerals and enforces health and scholarship regulations." [26] The Goucher Association followed the usual line of development, for it increased the number of board members and representatives as the number of sports developed. This association instituted a novel arrangement, in 1923, when it organized the Girls Athletic League within the Athletic Association. Only those students were members of the league who had earned a certain number of points.

At Mills in 1901 it was stated in the catalogue that the Athletic Association "controls and supplies all athletic sports of the school." [27] In 1902 the same statement was repeated, but with the added proviso that the Physical Instructor should serve jointly in the control of athletics. The same year the responsibilities of the Association were increased by the "arrangement of home tournaments, match games," and "games with outside schools and colleges." [28]

At Mount Holyoke, as at Goucher, the College Physician was the first president of the Association. Two years later, in 1897, student officers were elected. This Association has run the usual course, and its purpose has been "to further all the athletic in-

[24] From the Minutes of the Bryn Mawr Athletic Association.
[25] *Catalogue of Elmira College* 1900-1901, p. 42.
[26] *Bulletin Goucher College,* July 1915, p. 19.
[27] *Catalogue of Mills College* 1901-1902, p. 42.
[28] *Ibid.,* 1902-1903, p. 43.

terests of the college." [29] In 1921, an Outing Club was organized outside the department with the purpose of handling all sports not under the Athletic Association. The inauguration of this second athletic organization naturally created a difficult situation which was met by the formation of an Athletic Council to which the two belonged. The Council functioned for three years, at the end of which time it was discontinued, and the outing activities were then taken over by the department of physical education.

Athletics at Radcliffe were "under the auspices of Miss Wright and the Athletic Club." [30] In 1907 the aim of this Association was "to promote interest in gymnastics and athletic sports among the students at Radcliffe," [31] and in 1929, "to promote healthful living through gymnastics and athletic sports among the students at Radcliffe." [32]

At Rockford the Association, founded in 1911, stimulated "general interest in college athletics, particularly the outdoor work." [33] It always coöperated closely with the department of physical education, and had the usual faculty adviser from that department.

When athletics were organized into an Association in 1895-1896 at Smith, the Director of the Gymnasium was the first president. In the catalogue of the college for that same year was the statement concerning physical education which read "under the direction of this department is the Gymnasium and Field Association," the aim of which was "to cultivate interest in physical education and outdoor sports." [34] The problem of this Association was to maintain a board of sufficient size to represent adequately the rapidly increasing number of students with their varying needs. To meet this problem a larger group of students, representing each dormitory, was organized into a second body, through which athletic news could be dispersed and opinions gathered.

At Vassar the Athletic Association was organized in 1895 but was not mentioned in the catalogue until 1927 when the statement appeared "the Athletic Association assisted by the department of physical education exercises general supervision over competitive athletics, and a newly organized Outing Club." [35] This association

[29] 1917 *Llamarada* (Mount Holyoke), published in 1916, p. 51.
[30] *Reports of Radcliffe College,* 1902-1903, p. 55. Miss Wright was the Director of Physical Education.
[31] *The Radcliffe Magazine,* Dec. 1907, p. 50.
[32] From present constitution of the Radcliffe Athletic Association.
[33] *Cupola,* 1912 (Rockford), p. 45.
[34] *Official Circular Smith College,* 1895-1896, p. 31.
[35] *Catalogue of Vassar College,* 1927-1928, pp. 188-189.

has done a great deal of coaching of sports and has been interested in this aspect of organization.

In 1901 when the Wellesley Athletic Association was reorganized, the Director of Physical Education was appointed by the faculty as supervisor of athletics.[36] The department of physical education has always been very active in the promotion of sports and had the coöperation of the association.

### IV. The Development of Competition.

The Associations were organized primarily to take charge of athletic competition. At first this was a matter of the regulation of the college tennis tournament. Even these games had to be regulated from the outset to prevent the attempt to play off the entire tournament in one day. Then came basketball, and with this sport the introduction of intercollegiate competition at some of the colleges. As early as 1902 the Wellesley *News* published an article on the question of "How much and how keen competition" was desirable. The question of whether intercollegiate competition would raise the standards of health and recreation was brought up and unprejudiced discussion on the subject was asked. The statement was also made that "so far the east has not gone beyond interclass competition."[37] The last statement was not strictly correct since both Radcliffe and Barnard had played games with outside teams before this date. The history of intercollegiate sport in the twelve colleges is as follows.

In 1900 Radcliffe played the Boston Normal School of Gymnastics and Brookline.[38] Since then, the schedule of games has steadily increased until in 1915 at Radcliffe, there were six hockey and eight basketball games. Later outside competition in tennis and swimming was added.[39] In 1909 it was agreed "that with the exception of Smith[40] all games are to be confined to our own college."[41] This was no longer true in 1928-1929 when Radcliffe shortened its schedule to a few college games, but the new schedule of games necessitated traveling. At Barnard competition was for

[36] *The Wellesley News,* Dec. 5, 1901.
[37] *Wellesley College News,* Oct. 29, 1902.
[38] *The Radcliffe Magazine,* March 1900.
[39] *Reports of Radcliffe College,* 1915-1916, pp. 51-52.
*Ibid.,* 1917-1918, p. 56.
*Ibid.,* 1922-1923, pp. 97-99.
[40] A team of Smith students who lived in Boston played Radcliffe unofficially at vacation times. These games, which were continued through 1912, were never played at Radcliffe, as this would have given them official standing.
[41] *The Radcliffe Magazine,* Dec. 1909, p. 48.

the most part confined to games with Teachers College, a branch of the same university. But in 1902 there were games with Syracuse, Bryn Mawr, Smith Alumnae and the Methodist Episcopal Church, and in 1910 there was a schedule of six games, three of which were with Teachers College. In 1917 competition in hockey, tennis and swimming was added. In 1917 a man was engaged to coach the teams. This régime was so successful that they beat Teachers College.[42] When Barnard organized its own department of physical education interclass, rather than intercollegiate, sport was so stressed that by 1926 intercollegiate games were entirely replaced by intramural competition.

Bryn Mawr had some outside competition until 1910 when, according to the minutes of their Association, Miss Thomas ruled that Bryn Mawr students should not play games in groups outside of college.[43] As a result a regulation was passed which read "no full team of Bryn Mawr people may play outside games" and "no one may play at all without permission of the Athletic Association board." However, as late as 1914-1915 basketball games were played with Goucher and Barnard, and a track meet with Swarthmore was held. But no long schedules of games developed, and the outside games recently played by Bryn Mawr were, for the most part, those with clubs near Philadelphia, many of whose members were Bryn Mawr Alumnae. Bryn Mawr still competes with Swarthmore, and with Vassar.

At Vassar College outside competiton has consisted of an annual tennis match with Bryn Mawr, and of hockey games with the All-English and the Irish teams, and with some clubs. The major part of the athletic association program was given to intramural activities.

Elmira College has had three games each year with Cornell. These games came at the end of the hockey, basketball and baseball seasons. The main emphasis of this association, however, was the intramural program. As a great many of the students were more interested in dancing than in sports, competition was not stressed. Recently, Elmira has taken part in two "Play Days." [44]

Mills college played games with outside schools and colleges as

[42] *Mortar Board,* 1917 (Barnard), p. 61.

[43] Meeting, Oct. 14, 1910, from the minutes of the Bryn Mawr Athletic Association.

[44] Play Days, a form of competition in which two or more colleges met and teams composed of members of all the colleges were chosen and played against each other. Hence Mills did not play Stanford and California, but a team of Mills, Stanford and California students competed against a similar team. This type of competition was sponsored by the Women's Branch of the National Amateur Athletic Federation.

early as 1902. These games were discontinued, and the students of late have participated once a year in the Stanford—University of California—Mills Sports Day, a new term for "Play Day" which originated in California.

At Goucher, Mount Holyoke, Rockford, Smith, Wells and Wellesley the competition was intramural. The other six colleges also had strong intramural programs, as well as outside games. Intramural competition often consisted of tournaments in which as many teams as possible competed. At Smith there were three teams in each class which competed in hockey and basketball and two in other team sports. At Barnard a very elaborate system of competition among class teams was in operation.

Recently the possibility of over-emphasis in competition has been discussed. It was evident that many students preferred to improve their skill in individual sports in college rather than to spend time on competition even when opposing those of a skill equivalent to their own. The increased interest of students in swimming, tennis, riding, outing activities, camp craft, archery and dancing, all of which are activities in which the competitive element is not stressed, bore out this belief.

### V. Events Sponsored by the Athletic Associations.

Not only were competitive games managed by the athletic associations but certain athletic events were also their responsibility.

Descriptions of the games and tournaments of the early days show that they varied somewhat from present customs. A description of a basketball game at Goucher in 1902 reads: "now the teams ran in. The bell rang. The Captains shook hands . . . the game had begun. What a mad rough tumble it was." [45] Of another game at the same college it was said: "It was not a pretty game as there was too much scrambling and flooring but it was a game to be remembered." [46] In the first tennis tournament at Mount Holyoke twenty entries played off a tournament in one day.[47] The same herculean course was followed at Vassar in 1886, when one girl won the singles and doubles in one day although her partner was so exhausted that she sat down on the court except when it was necessary for her to receive or to serve! [48] The events of the first field day at Mount Holyoke, May 19, 1897, included basketball, slow bicycle race, 100-yard dash, throwing a baseball, "boat

[45] *The Kalends* (Goucher), March 1902, p. 159.
[46] *Ibid.*, February 1904, p. 103.
[47] *The Mount Holyoke*, June 1892, p. 152.
[48] *Vassar Miscellany*, Oct. 1915, p. 166.

races single, and tennis doubles." [49] while one event in a Goucher Field Day in 1904 was "the spirometer test." [50] There is a description of a gymnastic meet at Wellesley in 1890 which states, "the one hundred young ladies marched and counter-marched with the greatest precision and the most soldier-like appearance. . . . There was a good deal of work done in heavy gymnastics and it was shown that ladies could do work on parallel and horizontal

Practicing Technique for Lacrosse, One of the Team Games Which Vied With the Individual Sports in Popularity

bars ordinarily supposed to belong to men." [51] In 1893 on float night at Wellesley "the seniors in costumes of white and gold rowed across the lake." [52]

Gymnasium drills have always been popular and have been annual events in the colleges since the organization of the departments. At first these were demonstrations of class work. With the

[49] *The Llamarada* (Mount Holyoke), 1899, published in 1900, p. 97.
[50] *The Kalends* (Goucher), May 1904, p. 216.
[51] From *The Young Man's Era,* April 17, 1890, article by Luther Gulick.
[52] Newspaper clipping, dated June 12, 1893. Clipping Book Library, Department of Hygiene, Wellesley College.

growing popularity of sports, the drills too became competitive. Cups and banners were presented to keep the interest keen. In

Rhythmic Dancing, 1929

spite of this stimulus drills have, in some instances, been discontinued entirely, or a demonstration of general class work has been substituted. Competitive drills were held in 1928-1929 at Radcliffe,

Wellesley, Mount Holyoke and Goucher, but at Rockford and Smith they have been replaced by demonstrations of the work of the year.

The development of field days has been common to the twelve colleges. Starting with Vassar in 1895, they were by 1912 an event common to all twelve colleges. Mills, in 1929, had developed not merely a field day but a "Field Week." At several colleges, both fall and spring field days have been instituted.

Float nights were, in 1928-1929, a part of the athletic organization at Wellesley and Smith. Wells, Vassar, Elmira and Mount Holyoke, which had boating in the early days, did not continue the sport. Wellesley listed "rowing" as a sport as early as 1876, and had crews before 1890. Although Smith had boating in the nineties, it did not introduce rowing in shells until 1917. Mills had canoeing but did not have crews, although they were mentioned in the catalogue of 1915.

College horse shows were held at Goucher, Smith, Mills, Mount Holyoke and Radcliffe in 1928-1929.

Dance Recitals, or Dance Dramas, too, had come to be events of the year at all the colleges except Wells, Radcliffe and Bryn Mawr, and although they cannot be classed as sports, they were being accepted as an activity which the Athletic Associations sponsored.

In addition to the events common to all the colleges there was in each some specific event which was of traditional importance to that college. For example, the Greek games at Barnard, the May Day celebration of Elmira, the Wellesley float night, the outdoor basketball games in the Fall at Wells, the Fall tennis tournament at Goucher, the twenty-second of February at Smith with its "Big Game." These events were peculiar to the individual college and developed because of the situation of the institution and interests of those connected with it.

### VI. Awards.

In addition to these duties the Athletic Associations since their organization have given awards for athletic ability or some contribution to athletics. At first the use of numerals and letters was rather promiscuous and the wearing of them had no particular athletic significance. But gradually letters and numerals were restricted to those who won them by some athletic achievement and were awarded by the Athletic Associations. These awards like the Associations themselves appeared as a result of competition. Let-

ters or emblems were at first given only to championship teams or for those individuals who had broken some record. Later awards were given for ability and interest rather than for championships and the breaking of records.

The early attitude toward awards is illustrated in the minutes of the Athletic Association of Bryn Mawr which stated in 1894 that "only those who hold records or have played champion match games may wear numerals," and in 1909, January 22, "that numerals may only be worn while playing the sport in which they were won." [53] Later ties and shields and blazers were used as awards.

At Vassar "the rose colored V" was awarded in 1909 to one who had managed basketball for three years, to winners of the tennis tournament and to those who broke records on Field Day.[54]

The "S" sweater, the highest honor and given to the four students who had contributed most to athletics by their interest and standard of conduct and of play, was first awarded at Smith in 1911. This was changed to the "S" pin and was given to six students. The "S" for all Smith teams was awarded in 1912. A new award of a Smith blazer for those making three all-Smith teams was given in 1929.

The "G" at Goucher was awarded to the championship team of basketball in 1911, for hockey in 1913, and for certain events in swimming in 1915. In 1923 their first blazer was given to the best all round girl.

At Elmira the wearers of the "E" were listed by 1913 and by 1924, athletic honors, varsity and numerals were mentioned.

The Mills "M" was given in 1902 to those who had won distinction in any one line of athletics and also those whose "aggregate credits in the different branches" reached a certain point. This is the first "point system" mentioned in the twelve colleges.

In 1909 the "H" at Mount Holyoke was given to those who broke or held records in track, and in 1915 to this was added a championship basketball and hockey "H." In 1924 all Holyoke honors were won by points.

At Wells the "W" was awarded in 1917 to a student with unusual ability in two sports and ability in three or more. A blazer has been given the last two years. Also gold basketballs and hockey sticks were given the varsity teams in these two sports and cups for golf and tennis.

[53] From the Minutes of the Bryn Mawr Athletic Association.
[54] *Vassar Miscellany,* Oct. 1915, p. 171.

At Radcliffe letters and numerals were awarded and cups for some events.

At Barnard numerals and letters were awarded and a special "B" for honors in the Association and two types of pins for honors of somewhat less high standards.

Wellesley had a rather complicated system of awards which developed from numerals to initials of the sport, to double batons, to single batons, to varsity pins, to cups and finally to the highest honor, the Wellesley blazer.

At Rockford awards were made up on the basis of a point system.

**VII. Point Systems.**

The institution of point systems was fairly recent at most of the colleges. The purpose of such a system was to encourage student participation in sports by awarding a certain number of points for any achievement selected by the association. Certain long walks or accomplishments other than team membership were thus put on the same basis as competitive sports. The "Annual Conference of Athletic Associations for College Women" even worked out a point system which the Conference hoped all college Athletic Associations for women would adopt. This idea was given up in 1929. In the twelve colleges point systems were used at Elmira, Goucher, Mount Holyoke, Rockford and Wells. The other seven colleges, Barnard, Bryn Mawr, Mills, Radcliffe, Smith, Vassar and Wellesley did not use point systems. The criticism against the point system as a basis of awards was that the interest of the students was focused upon the points and the award rather than upon the sport. Hence no lasting interest in the sport was developed.

*The Athletic Conference of American College Women.* The conference of the Athletic Associations for college women was organized by students in the middle west in 1917. Its membership has grown until it has become a national organization. It published a news letter in 1922 and has continued this practice. Some of these twelve Associations have been represented in the Annual News letter of the "A. C. A. C. W.," *i.e.,* "Athletic Conference of American College Women," since it was first printed. The first news letter was sent out in 1922 and the last one, at this writing, in 1929. The following associations were represented in the two letters:

| 1922 | 1929 |
|---|---|
| Barnard | Goucher |
| Bryn Mawr | Mills |
| Goucher | Mount Holyoke |
| Mills | Rockford |
| Mount Holyoke | Smith |
| Rockford | Vassar |
| Vassar | Wellesley |
| Wellesley | |
| Wells | |

In addition to appearing in these news letters several of these associations had sent articles to *The Sportswoman* [55] where they have appeared in the college section sponsored by the A. C. A. C. W.

*Summary.* It can be seen from the multitudinous duties of the present day associations that they have indeed changed in theory and scope from the early days when the management of tennis tournaments and basketball games was their only responsibility. Then the membership was composed of the best athletes. In 1928-1929 it was open to the whole college. At first it was interested in arranging a few games for these athletes with the rest of the college as an audience. In the past few years all types of activities have been sponsored by the associations and the aim has been to find a sport or other activity for each student rather than to limit the number of students in order to gain a winning team. At the same time standards of health and general physical efficiency and the enjoyment of participation in sports was stressed rather than the promotion of sports for the most skilled. One cannot help but greatly admire the students who have seen these further ends and sought to attain them through a well run and varied program.

[55] See above p. 12.

# CHAPTER VIII

## COSTUME

The changes in costumes for gymnastics and sports during the last forty years have been as complete as have been the changes in the programs of sports.

### I. Dresses as Gymnastic Costumes.

For the first classes of gymnastics or calisthenics ordinary dresses were worn but the catalogues suggested that an appropriate dress be secured.

At Mills Seminary the catalogue of 1872 stated "for this class a suitable dress should be worn and to secure uniformity, should be made at the Seminary." [1] At Vassar in 1865 each student was "required to provide herself with a light easy fitting dress adapted to these exercises." [2] The next year uniforms were required—which were described as "uniform gymnasium dress of gray flannel, high necked, long sleeved, and ankle lengthed skirts, with bloomers under the skirt. Later the girls were permitted to add scarlet collars and cuffs or a scarlet sash." [3]

Elmira printed in its catalogue of 1872 a most detailed description of the gymnastic costume which it required. It was of "black alpaca, lined throughout," the waist was "Garibaldi, long enough to allow arms to be raised to the utmost extent," the belt was to be "4 inches longer than a close fitting measure," the skirt was to be "finished ten inches from the floor, drawers, Turkish, full, drawn in with elastic band at bottom: falling over *à la zouave* same length from floor as skirt." The trimmings were to be of "Gilbert's opera flannel, scarlet." [4] This statement appeared in the catalogue from 1872 to 1880. Before this, in 1864 it had been stipulated that "a suitable dress" would be needed for gymnastics.[5]

The early costume of the Mount Holyoke students was very

[1] *Catalogue of Mills Seminary,* 1872-1873, p. 23.
[2] *Catalogue of Vassar Female College,* 1865-1866, p. 28.
[3] Johnson, Emily Cooper, *Dean Bond of Swarthmore, a Quaker Humanist,* Press of Lippincott Co. (no date, after 1926), p. 83.
[4] *Catalogue of Elmira College,* 1872-1873, p. 28.
[5] *Ibid.,* 1864-1865, p. 17.

similar to the one described above and was called the Lewis gymnasium dress.[6]

At Smith the costume of the students was evolved by their first teacher of gymnastics, Miss Lucy B. Hunt, who after teaching for six years had "a model" that she thought "nearly perfect." "The material is twilled flannel with cambric lining in waist and sleeves and required 7 to 8 yards." . . . "The flannel drawers which always accompany this dress . . . should be long enough to reach a little below the knee, where they are confined by an elastic cord, showing very little if any below the dress." "The skirt trimmed with a plaited flounce and with several rows of red, white or gold braid add to the effect . . . cost $6.25. Skirt seven inches from the floor in back and eight in front. . . . A short white flannel skirt must always be worn" and "easy broad soled buttoned boots" were recommended as the best. If the students found it necessary to go outside after exercise, they were advised to put on "a cloak or long dress." [7]

**II. The Divided Skirt.**

In the latter eighties a shorter costume was used. In a clipping from the library of the Department of Hygiene at Wellesley College appeared a description of the costumes of Dr. Sargent's summer school classes.[8] "For the outer costume the young lady gymnasts, most of whom are instructors at various schools in different parts of the United States, wore dark divided skirts which came to the knee, a loose fitting blouse, black stockings and shoes." . . . A description similar to this was found in the Mount Holyoke Catalogue of 1891-1892, "The short divided skirt of flannel and felt soled gymnasium shoes are worn during exercise." [9] This announcement appeared during only one year, 1891-1892. The matter of costume is then kept discreetly out of the catalogue until 1910 when "for the sake of uniformity the students are requested to secure their gymnasium suits through the department."

*Student Disapproval.* That the short gymnastic costume of 1890 did not meet with the approval of the students was shown both at Vassar [10] and Bryn Mawr. At the latter, in the minutes of the Athletic Association for April 2, 1894, it was resolved

[6] McCurdy, Persis Harlow, *The History of Physical Training at Mount Holyoke College,* in the *American Physical Education Review* for March 1909, p. 146.

[7] Hunt, Lucy B., Instructor of Gymnastics, Smith College, *Hand-book of Light Gymnastics,* published by Lee & Shepard, Boston, 1882, Chapter 9, p. 81.

[8] No year, but from content must be 1890 or 1891, *Boston Transcript,* Dec. 5.

[9] *Catalogue of Mount Holyoke College,* 1891-1892, p. 19.

[10] *Vassar Miscellany,* Oct. 15, 1915, *The Evolution of the gymnastic costume,* p. 168.

"1. That in all sports requiring short skirts leggings shall be worn.
"2. That the length of the skirt shall be left to the discretion of the captains of the teams.
"3. That in no athletic sports shall sweaters be worn."

The motion to permit the use of gymnasium waists while playing basketball was lost.

At the University of Nebraska similar disapproval was shown. Although Nebraska was not one of the colleges included in this study, this description is doubtless an indication of student attitude toward gymnasium clothes which existed in the nineties: "The new girls when first appearing in gym clothes, were overcome with shame, although no man, not even the janitor, was allowed to enter while the girls were there; most of the new girls were so shy, even before others of their own sex and age, that they could not take a step, but sank down in a heap on the gymnasium floor, huddling together and refusing, almost to tears, to take part. Within a week, however, under the urging of the older girls to 'get over their foolishness,' they exulted in their new freedom." [11]

The picture on page 81 is reprinted from the Mount Holyoke Llamarada [12] of 1897. It shows the first basketball team of that college. From this picture it can be seen that leggings, sweaters, and bloomers were worn at Mount Holyoke.

*Skirts or Bloomers.* The catalogues published during these trying times avoided rather neatly the statement of actual policies regarding skirts and bloomers by the use of the word "costume." A gymnastic costume might mean a dress, or a suit with bloomers. Since it was procured at the college in most cases the exact type of costume could be revealed after the student had entered.

### III. The Suit with Bloomers.

Goucher, however, came out firmly in 1891 and said "suits are required," [13] and by "suits" meant bloomers and a serge waist. In November 1892, a student publication "The Kalends" described these uniforms thus:

> "I remember, I remember the gymnasium where we walked—
> Round and round the mystic circle
> With our shoes all nicely chalked
> In our pretty dark blue costumes

[11] Sullivan, Mark, *Our Times,* published by Charles Scribner's Sons, New York, 1927, pp. 191-192.
[12] *The Llamarada* (Mount Holyoke), published in 1897 by the Class of 1898, p. 125.
[13] Catalogue of *The Woman's College of Baltimore* 1891-1892, p. 65.

Rather baggy round the knees
And our yellow ties and slippers
And our ankles on the freeze." [14]

Sports and Gymnastic Costumes
1 1879 2 1889 3 1902 4 1926

These same costumes were described in a clipping found at the Library of the Department of Hygiene at Wellesley. "The youth-

[14] *The Kalends* (Goucher), Nov. 1892, p. 5.

ful maids were dressed in the usual costume of loose blouse and full zouave trousers of dark blue, with a big bow of yellow ribbon at the throat, long dark stockings and tan heelless shoes, the frequent Psyche knots lending a nice demure touch." [15]

The costumes which the Barnard students wore at the Berkeley Gymnasium also called forth a poem in the Annual of 1894, one line of which reads "The line of learned maidens with trousers to the knee." [16]

### IV. Serge Blouses Discarded.

After the adoption of serge waists and bloomers for gymnastic exercises, which occurred in most of the institutions before 1900, came the movement away from the heavy serge waists and a gradual substitution of middy blouses. This substitution was not made until after 1910. At Bryn Mawr it was never an official uniform.

### V. Sports Costumes.

In most of the institutions the same costume has been used for sports and gymnastics. But at Bryn Mawr and at Wells the costumes for athletics have been different from those used for gymnastics. At Bryn Mawr a corduroy skirt and white flannel blouse was voted by the Athletic Association as early as 1898, and with modifications was continued until within the last ten years, when tunics, which were still in use in 1928-1929, were substituted. At Wells a great variety of costumes were found in their class book pictures, for each team had combined its colors in a different way.

### VI. Modern Costumes.

At the meeting of the "Eastern Association of Directors of Physical Education for Women in Colleges and Universities" in 1928,[17] costumes were exhibited which were advocated by the members for sports and gymnastics. The costumes, with a few exceptions, were almost identical. The circular serge bloomer, the tailored shirt, the slip-on sleeveless sweater, unrolled dark stockings, and shoes or sneakers. Although bloomers and sweaters were of a variety of colors and cuts, they were all dark. In 1928-1929 this costume was in use at Goucher, Radcliffe, Smith, Wellesley, Barnard and Mount Holyoke. At Bryn Mawr tunics were used. At Wells white knickers and blouse and a colored jersey and black

[15] From the Clipping Book Library, Department of Hygiene, Wellesley, name of newspaper not given, date April 6, 1894.

[16] *The Annual* (Barnard), 1894, p. 54.

[17] Skidmore College, Saratoga Springs, N. Y., Spring of 1928.

stockings comprised the regulation costume. At Mills a black one piece alpaca suit, a white blouse, short socks and black gymnasium shoes were required. At Vassar the costume was in process of change, but bloomers and middy were used. Elmira also used the middy and knicker bloomers. At Rockford the costume was shorts, sneakers, socks and tailored blouse.

*Recent Changes.* Two departments were in the process of

Sport Costumes, 1901
From the Woman's Book of Sports by J. Parmly Paret, published by permission from D. Appleton and Company.

making changes. At Smith and Bryn Mawr short socks were to be a part of the costume. Likewise at Smith a one-piece suit was to be used for inside work, while for outside work a tunic was to be added. These were to be of washable, light colored cotton material. In the college year 1928-1929 two colleges were using swimming suits for part of the gymnastic work.

## VII. Swimming Suits.

Swimming suits have also undergone a change. In 1901 an over-suit with sleeves, a full skirt and bloomers, stockings and

shoes were necessary. The one-piece tank suit of 1928-1929 was a decided contrast to this.

### VIII. The Dancing Costume.

At first the costume for dancing was merely the gymnasium suit. But between 1905 and 1910 the æsthetic costume was

Sports Costumes in 1929

evolved, a full black skirt, a black short sleeved waist with white ruffles at neck and elbows, black stockings and ballet slippers. With the institution of natural, classic, rhythmic or interpretative dancing the present dancing costume evolved. Though Grecian in form they were decidedly bulky in the early days of 1913 and worn with white ballet shoes and stockings. Of late they had changed to silk slips worn over jersey suits, which were similar to tank suits. Stockings were seldom used, and sandals, if shoes were included at all, were worn.

*Significance of the Development of the Costume.* The development of the costume at the twelve colleges is indeed significant. What handicaps the early students had to surmount in long sleeves,

1915

1929

DANCING COSTUMES

high necks, heavy material, long skirts, petticoats, and long bloomers! Without doubt they exercised with grace and vigor, but the scope of their activity was necessarily restricted. How much easier it is for the modern student to dive in her one-piece suit into the pool, to dance in a soft silk slip, or to play games in her well fitted circular bloomers, her neat tailored blouse and sweater. She is appropriately dressed to take part in whatever activity she may choose. The self-consciousness which was responsible for the lined dresses, the petticoats, the bloomers and the leggings of the early days has passed. In the changes which have occurred there appears not only a difference in matters of taste and modesty but also a reaching out toward freedom in movement and action.

# CHAPTER IX

## SUMMARY AND CONCLUSIONS

### SUMMARY

The development of physical education in colleges for women as illustrated by Barnard, Bryn Mawr, Elmira, Goucher, Mills, Mount Holyoke, Radcliffe, Rockford, Smith, Vassar, Wellesley and Wells has been traced in the preceding chapters. The story of the rise of physical education in these institutions has been discussed in relation to:

I. The theory upon which the work of physical education has been based.
II. The program.
III. The equipment.
IV. The staff.
V. The organization of physical education.
VI. Athletic Associations and Competition.
VII. Costume.

A brief summary will help to bring to mind the main points of the preceding chapters.

**I. Theory.**

Physical education was first introduced at colleges for women to cure "distortions" of the spine and other maladies thought to be the unavoidable result of study. At this time it was restricted to the matter of exercise. The teacher of calisthenics or light gymnastics did nothing save supervise this exercise and did not concern herself with those phases of student training into which this could so easily have developed.

Between 1880-1890 the belief that ill health need not result from study was generally accepted. As a result physical education came to be looked upon as a preventive rather than as a curative measure. Teachers of physical education still clung to the idea that exercise was the most fundamental factor, and continued to stress the importance of the development of the muscles as a real benefit to health.

In 1890 grew up the theory of the functional training of the

body which laid greater emphasis upon the general well-being of the body rather than upon the increase of any particular sets of muscles. Moreover character training came to be considered as one of the aims of physical education. It was believed that if the discipline of formal gymnastics was carried over into every-day living it would produce self-control and poise.

In 1910 an article in the year book of the National Society for the Study of Education [1] stated boldly that physical education was a branch of general education, and that those who were teaching it were too little acquainted with the theories of general education. It likewise asserted that physical education had too long concerned itself with health alone and that, while physical benefits must be secured, it should rather concern itself with such activities as gave opportunities for the mental, moral and social development of the child, by means of which physical benefits could be secured indirectly. It was felt that from the standpoint of psychology, there was little hope for obtaining the general desirable character training from so restricted a system of instruction as gymnastics.

The new theory was so revolutionary in its suggestions that considerable opposition was aroused. It is evident from this study that in the past nineteen years this broader theory of physical education has been gradually adopted at colleges for women in their practical programs, even if it has not always been accepted in their theoretical statements.

### II. The Program.

The programs have always reflected the dominant ideas of the period. The sixties produced but one activity, calisthenics or light gymnastics. The number of activities has gradually increased until in 1928-1929 from sixteen to twenty-five were to be found. These activities included gymnastics, sports, dancing and outing clubs.

Motor ability or physical efficiency tests are of recent origin and are used in five of the twelve colleges. But no two of the five are using exactly the same test. Five other colleges have tried motor ability tests, but have discontinued the practice. Two colleges have not experimented with tests.

### III. Equipment.

The equipment has been increased as the programs have broadened. Gymnasium floors or buildings were first mentioned as the

[1] Wood, T. D., *Ninth Year-book of the National Society for the Study of Education*, 1910, pp. 79-90.

center of department activities. Before 1890 heavy apparatus and machines for corrective exercises were installed. Later the floors were cleared for group activities. Dressing rooms, shower baths and swimming pools were added. A demand for athletic fields had to be met. With the twentieth century greater interest in sports arose and resulted in more indoor and outdoor play spaces. Only those colleges which were located in the cities, were unable to increase their outdoor facilities. The most recent kinds of additions to the outdoor equipment have been club houses, outing cabins, riding rings, stables, and golf links.

### IV. The Staff.

Originally the staffs of the colleges were first composed of one part-time teacher who taught calisthenics when she was not teaching something else. By 1892 most of the colleges were employing full-time instructors for physical education. In all the colleges the number of department members has increased steadily since that time, although not in proportion to the increase of students. In the last ten years there has been a marked increase in the number of the members of the department holding degrees, several of whom had degrees above a B.S. or an A.B. At the same time there have been more academic appointments above the rank of instructor and assistant than were to be found ten years ago.

### V. Organization.

The organization of the departments of physical education has reflected the foregoing changes. A few gymnastic classes were first organized. Then the attendance at these classes which had been optional in the beginning, became a requirement. Later the students were graded in their classes and credits were given for physical education. This led to additional equipment, to an enlargement of both organization and staff. Physical examinations were introduced and clerical work increased. As a result of the acceptance of a broad program of activities as a means of fulfilling the requirements of the departments, the number of classes scheduled by the departments was increased.

Physical examinations have become less detailed than in the early days. The number of measurements and tests has greatly decreased while the detail of the orthopedic, or back and foot, examination has increased. The emphasis in 1929 was upon the general condition of the student rather than upon the girth or strength of her various parts.

**VI. Athletic Associations.**

Athletic Associations were organized in most of the colleges before 1901. These Associations were the direct result of the earliest forms of athletic competition—tennis tournaments and basketball games. As the programs of physical education broadened the duties of these associations increased until their responsibilities included not only the moulding of the athletic policy of the college but the management, and in some cases the financial responsibility for games, meets, tournaments, field days, float nights, dance recitals and dance dramas, horse shows, and outing clubs.

**VII. Costume.**

The costumes for gymnastics and sports have mirrored the radical changes that have occurred in the last seventy years in clothes for women. The gymnasium costumes of 1866 cleared the floor by only seven or eight inches and were worn over flannel petticoats and "drawers." When bloomers appeared in the nineties, leggings were a part of the costume. But these gaiters were soon discarded and the size of bloomers has steadily decreased until short trousers were occasionally advocated, but were not favored by the majority. Light-weight cotton suits are replacing heavier ones of serge, and modern swimming suits and dancing costumes permit a freedom of movement undreamed of by the gymnast of 1865.

## CONCLUSIONS

From the earliest days interest in physical education in the colleges for women has steadily increased. With such development the opportunities and responsibilities which departments of physical education must face are many.

Since physical education for women has developed in each era in response to the needs of that particular period and since the preparation of the student to meet future situations is the basic aim of physical education, it is essential that the conditions of life for which the student is preparing should be analyzed.

The majority of the students of to-day come from the more crowded communities. There is likewise every probability that the cities will continue to attract an increasing number of graduates. In the city the environment in which the student finds herself is constantly changing. She must be ready then to meet these changing conditions without undue nervous strain. This means she will

need self-control, poise, balance and the power to use her body in the most efficient way.

She will find that many vocations are open to her—industry, politics, or the professions—she may become even more occupied with the care of her own home, or of her children, and with many community responsibilities than are those in "gainful occupations." Surely every individual will go from college into an extremely full and busy life. Fortunately the college reflects such a life in miniature. The habits and attitudes acquired in the academic atmosphere will not be found to be completely foreign to the experience of the outside world. College life presents to each student a wide range of activities from which she must choose those things which she most desires. The number of students who elect physical education when it has ceased to be a requirement, indicates the number of those who find the program of activities of the department sufficiently worth while in the face of a crowded schedule.

It is important for the department of physical education not only to look into the probable future of the students, but also to realize that in college comes the last formal opportunity to assist in her training. What, then, are the responsibilities of the physical education department? Some of the most outstanding are the following:

1. *To Ascertain the Physical Condition of Each Student,* and to correct defects when necessary or possible. It is even more important that it establish the vitality of each student and make sure that this vitality is built up rather than decreased by the activities in which the student participates.

In this matter the colleges uphold a high standard. Examinations are required of all students and frequent reëxamination for those who are below the general standard or for those who are to participate in a vigorous season of competitive sport. Activities are carefully graded and the student may participate only in those activities which will be beneficial for her.

2. *To Present a Program Which Will Meet the Needs of Each Student in Regard to Her Individual Differences of Inclination, Skill and Vitality.* At the present time the colleges studied show some variation in this matter; but all recognize individual differences in vitality. The program of physical education includes a variety of activities which are graded as to the demand they make upon the strength and endurance of the student.

The grading of sections of sports in relation to the degree of

skill of the participants is done with greater ease in those institutions in which the number of students necessitates many classes. In the smaller colleges it is not always possible to separate the beginning from the intermediate and the advanced groups. But the custom of playing the advanced players against equally advanced groups is a recognized principle in the teaching of sports, and is advocated whenever such an arrangement is possible. The custom of giving opportunity for competition to less skillful students is not so well established.

It is a common practice in colleges for women to vary the program in relation to the taste or inclination of the student. This is one explanation for the great increase of the number and kinds of activities sponsored today by most college departments. The second method by which the attempt is made to meet the individual tastes of each student is found in the substitution of the less formal activities for gymnastics, and in granting her the privilege of choice in the activities in which she wishes to participate.

3. *To Give the Student Sufficient Skill and Interest in Some Activity to Make Probable the Continuation of This Activity Both in and After College.* The college departments are all agreed that one of their functions is to impart such skill and to arouse such interest in those sports which may be played after college, that their continuance will be assured. Unfortunately many of the college instructors are not as well prepared to teach these sports as they are to instruct in team games. They are able to teach archery and swimming. In a lesser degree they can teach tennis, which is fortunately being stressed at present in the better training schools for teachers. But they are quite unprepared to instruct in golf, which is one of the sports most widely played after college. It is difficult to find riding and fencing instructors who have had training in physical education.

As a result professional coaches must be engaged to teach these activities. When this is done the claim that physical education is an educational process for which only specially trained teachers should be employed cannot be sustained. The practice which takes instruction in sports away from the educator and puts it into the hands of the professional coach, sacrifices the well-rounded education of the student to the teaching of the sport.

A second evil which has resulted from this lack of adequately trained teachers is that the students are permitted to substitute unsupervised hours of activity for class work. Such a practice is

contradictory to the belief that every class in physical education should have some definite objective. Academic departments would not consider for a moment such a substitution for class work. Why should this be done in physical education?

4. *To Offer the Students Situations in Which they May Express and Develop Their Own Ideas with Helpful Advice from a Competent Member of the Department.* The three most obvious channels through which the students might express and develop their own ideas are through the management of athletics, through dancing and dance composition, and through outing or camping activities. In all the colleges the management of games, tournaments, field day, etc., are in the hands of the students. Dancing is offered at all the colleges, and in several colleges there are outing clubs which sponsor camping and camp craft. The point at which the colleges differ is in the amount and kind of advice given or desired by the students. As stated before in the management of athletics, in one college there is no channel through which advice can be given. In others advice is sought by the students, but not officially. In others the student management is closely supervised by the department. It is impossible for a visitor to tell how close this supervision is and whether it is a matter of mutual coöperation or whether it is not in some cases so close that student initiative is somewhat hampered. This latter state of affairs could easily exist in the athletic management, in the teaching of dancing, or the supervision of camping activities. The building of a truly coöperative attitude on the part of the students rests largely upon the skill of the individual instructors.

5. *To Have a Program Which is in the Eyes of the Majority of Students Reasonable and Interesting.* It was difficult for a visitor to ascertain the exact status of the program of physical education in the eyes of the students. In one college the students had a definitely negative point of view in their estimate of the interest and value of the physical education program. In the others it was evident from the elective work that students were interested in that part of the program which dealt with sports and games. A small group enjoyed vigorous gymnastics even more than sports or dancing. Others wished to work on the correction of some defect through corrective exercises. But the majority of students found greater satisfaction in sports and dancing than in gymnastics.

The degree in which the program seemed reasonable to the students depended upon the adequacy of the explanation concerning

the purpose and plan of the department program. The bulletin issued by the Department of Health at Mills College is to be highly commended in this respect. It was a clear statement of the plan and purpose of the department. College students respect a reasonable and purposeful plan of work. If they did not find the program reasonable it was probably either because it was not reasonable, or because no effort had been made to state clearly the aims and objectives of the department and the means employed to attain them.

6. *To Stress Consistently and in Many Situations a Definite Standard of Conduct Both for Students and Department Members.* The purpose of this would be to stress desirable behavior in so many different situations that such behavior might become habitual. It was expected at one time that a display of sportsmanship in one situation meant that sportsmanship would continue to be shown by the student in other unrelated situations. This is not always true. On the other hand it is evident that the stressing of the attitude of say, generosity toward one's opponents, one's own teammates, and in the execution of any plan of organization or activity in which the student might take part, would have the effect of tending to create in that student a general attitude of generosity.

The conduct of the student in college is the result of the influences she has had before college and those standards which she encounters in college. She may have extremely high standards before she enters college. It is important that such students be encouraged in all ways to retain these standards and that other students come in contact with them. Behavior which is unsatisfactory both to the student and others can be recognized and every effort made to change or at least modify this. The amount that physical education can do in this matter rests largely upon the skill and influence of the individual instructors. In choosing instructors it is therefore most important that they be persons who will recognize their responsibility in this matter as well as in the teaching of their specific activities.

As to the status of the colleges in this respect, the faculty members in charge of physical education recognized that the training of the students in matters concerning conduct and behavior was a most important department responsibility, and one for which the standards of the individual instructors is largely responsible. No outside visitor could determine so intangible a matter as the degree to which the influence of the teachers of physical education was felt by the students. The proof in this case rests upon the quali-

ties found in those students who have come under the influence of the specific instructors.

The attitude of the students toward sports and in participation in activities in college seemed to be in a fairly healthy state.

There was another aspect of attitude toward sports which was not stressed in the colleges and to which more attention might be given. The students after graduation return to various communities in which athletics for girls and women are a part of the community recreation. These same students may be leaders of girls' clubs and scout troops, in Parent Teacher Associations, on School Boards or in politics. Their husbands or fathers may be on various city committees which include city recreation. It is then important that the students be given an understanding both of the possible benefits and the opportunities for harm in athletics. There is often a lack of discrimination on the part of the college graduate in her support of any type of athletics for girls and women regardless of the effect this may be having upon the participant. An intelligent understanding of the value of and the place of sports for girls and women should in some way be brought home to the student before she leaves college.

Physical education in colleges for women was receiving in 1928-1929 the interest and support of the college administrations in a greater degree than at any time in its previous history. Prejudices against active sports and games for women and appropriate costumes for them had broken down. Facilities for physical education had greatly increased. It remained with the teachers of physical education to seize and utilize these opportunities for the promotion of a type of physical education which would be truly helpful to the students in preparing them to meet the many and varied situations both in and after college.

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